

Immunohistochemical characterization of the nervous system of *Culex pipiens* (Diptera, Culicidae)

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Supplementary material

S1. Interspecies multiple sequence alignment of the target epitope of antibodies used

S1.1 Bruchpilot (Gene ID: 35977)

S1.2 Elav (Gene ID: 31000)

S1.3 Futsch (Gene ID: 6724864)

S1.4 Gephyrin (Gene ID: 10243)

S1.5 Phosphosynapsin (Gene ID: 6853)

S1.6 Choline acetyltransferase (Gene ID: 42249)

S1.7 Glutamine synthetase (Gene ID: 2752)

S1.8 Tyrosine-hydroxylase (Gene ID: 25085)

The *in silico* assay for protein homologs identified respective protein sequences for *Drosophila melanogaster* and mosquito species such as *Culex quinquefasciatus*, showing homology between 39 to 65 % and 40 to 70 %, respectively. The homology to *Culex pipiens* biotype *molestus* could not be assessed due to lack of available sequences for comparison. The protein sequence alignments for each protein are shown below and further comprise percentage identity matrices for the respective protein. The epitope of interest is highlighted in yellow if provided by the manufacturer.

Sequence identities were marked underneath the protein alignment as follows:

* (asterisk): indicates single fully conserved amino acid,

. (period): indicates strongly similar amino acids between groups,

: (colon): indicates weakly similar amino acids between groups.

S1.1. Multiple sequence alignment for bruchpilot (Gene ID: 35977)

<i>Drosophila melanogaster</i> ; AFH07983.1	msrddynpvtssgvrspgrvrrlqelptvdrspdrdygaprgsplamgspyyrdmdepts	60
<i>Culex quinquefasciatus</i> ; EDS45873.1	----- 0	
<i>Anopheles darlingi</i> ; ETN64951.1	----- 0	
<i>Drosophila melanogaster</i> ; AFH07983.1	pagaghrrsrsarppmahamdyprrtryqslldrgglvdphdrefipreprdrsrdsle	120
<i>Culex quinquefasciatus</i> ; EDS45873.1	----- 0	
<i>Anopheles darlingi</i> ; ETN64951.1	----- 0	
<i>Drosophila melanogaster</i> ; AFH07983.1	rglyledelygrsarqspmsamggyntgmgsptsdraylgdlqhqnldlqrelgnlkrelel	180
<i>Culex quinquefasciatus</i> ; EDS45873.1	----- 0	
<i>Anopheles darlingi</i> ; ETN64951.1	----- 0	
<i>Drosophila melanogaster</i> ; AFH07983.1	tnqklgssmhsiktfwspelkeralrkeesakyslindqlklstenqkqamlvrqlee	240
<i>Culex quinquefasciatus</i> ; EDS45873.1	----- 0	
<i>Anopheles darlingi</i> ; ETN64951.1	----- 0	
<i>Drosophila melanogaster</i> ; AFH07983.1	elrlmrqpnlmqqqmeaiyaendhlqreisilretikdlecrvetqkqqliardesik	300
<i>Culex quinquefasciatus</i> ; EDS45873.1	----- 0	
<i>Anopheles darlingi</i> ; ETN64951.1	----- 0	

<i>Drosophila melanogaster</i> ; AFH07983.1	kllemlqakgmgeeermfqqmqamaqkmynnytgasgssplpdiigqyygpgslgp	360
<i>Culex quinquefasciatus</i> ; EDS45873.1	-----0	
<i>Anopheles darlingi</i> ; ETN64951.1	-----marfyssnfh--10	
<i>Drosophila melanogaster</i> ; AFH07983.1	gplsygsgngygppgydlygpststaaggyglydpqi ygpcqqtspirrrysia glpsa	420
<i>Culex quinquefasciatus</i> ; EDS45873.1	-----0	
<i>Anopheles darlingi</i> ; ETN64951.1	-----napaskf-----ldvrsgrlparrysisgs vpl	38
<i>Drosophila melanogaster</i> ; AFH07983.1	tmyndvygyp-applqqtsssnivnlneahksisr ssqilnltnqarqlgqlvt tpgg	479
<i>Culex quinquefasciatus</i> ; EDS45873.1	-----0	
<i>Anopheles darlingi</i> ; ETN64951.1	ssmvdycnlsenaanlykhsanltnlnettkslsrssnilnrcvppst---vthtlp-	94
<i>Drosophila melanogaster</i> ; AFH07983.1	ggvgmg lgrvvssyptlhpgdtppylndnlmqmstsfssqpnmyfq pqaqvqvlptql	539
<i>Culex quinquefasciatus</i> ; EDS45873.1	-----0	
<i>Anopheles darlingi</i> ; ETN64951.1	gaigsnnngnscpltfppsssq-----pvpppqs	125
<i>Drosophila melanogaster</i> ; AFH07983.1	taaqsaaaaarlrpaysvtnlvssyptttaagygckygyggnpyqsd lgygnplapfqq	599
<i>Culex quinquefasciatus</i> ; EDS45873.1	-----0	
<i>Anopheles darlingi</i> ; ETN64951.1	tip-ssagsvfdpspsisler-iaasaastvmgftcsypnagssaklp saidn-----	176

Species	Gene	Accession	Protein	Length
<i>Drosophila melanogaster</i>	AFH07983.1	659		
<i>Culex quinquefasciatus</i>	EDS45873.1	0		
<i>Anopheles darlingi</i>	ETN64951.1	188		
<i>Drosophila melanogaster</i>	AFH07983.1	718		
<i>Culex quinquefasciatus</i>	EDS45873.1	13		
<i>Anopheles darlingi</i>	ETN64951.1	227		
<i>Drosophila melanogaster</i>	AFH07983.1	777		
<i>Culex quinquefasciatus</i>	EDS45873.1	26		
<i>Anopheles darlingi</i>	ETN64951.1	243		
<i>Drosophila melanogaster</i>	AFH07983.1	837		
<i>Culex quinquefasciatus</i>	EDS45873.1	41		
<i>Anopheles darlingi</i>	ETN64951.1	277		
<i>Drosophila melanogaster</i>	AFH07983.1	897		
<i>Culex quinquefasciatus</i>	EDS45873.1	101		
<i>Anopheles darlingi</i>	ETN64951.1	337		

[illegible]

<i>Drosophila melanogaster</i> ; AFH07983.1	klqnsldkaqnevdlhldkldkactenrrlvlekekitydydnlsqldkalgqaarmqk	1257
<i>Culex quinquefasciatus</i> ; EDS45873.1	kiqnaldkaqnevdlhldkldksvgevrrlqlekekinyefeniqsldkqlgqssrvqk	448
<i>Anopheles darlingi</i> ; ETN64951.1	klqnsldkaqndvdlhldkldksvgeirrlqlekekinyefeniqsldkslgqssriqk	639

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<i>Drosophila melanogaster</i> ; AFH07983.1	eretlsldtdrrekletqvqlgriqkerdqfsdeletlkersesaqtlmkaardrea	1317
<i>Culex quinquefasciatus</i> ; EDS45873.1	ereavqmdleryrdkdklqtalsrlqkerdilgdekllekaegtqssalkyqrerda	508
<i>Anopheles darlingi</i> ; ETN64951.1	ekeaaqldldryrdkdklqstvarlqkerdilecmkkesestqsnalkyqrerda	699

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<i>Drosophila melanogaster</i> ; AFH07983.1	mqtdlevlkeryekshaiqqklqmerddavteveilkekldkalyasqklidekdsnke	1377
<i>Culex quinquefasciatus</i> ; EDS45873.1	iqtelevvkerwekahqihqklqmerddavteidilkekldkalyasqklidekdnsnke	568
<i>Anopheles darlingi</i> ; ETN64951.1	iqtelevvkerwekahqvhqklqmerddavteidilkekldkalyasqkvideketstke	759

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<i>Drosophila melanogaster</i> ; AFH07983.1	fekmlekydraqneiyrlqsrcdtaeadrarleveaersglaaskaredlrklqdestrl	1437
<i>Culex quinquefasciatus</i> ; EDS45873.1	fekmlekydrsqneiyrlqsrcdtaeadrnleveaersalaaakakedlrklqeettrl	628
<i>Anopheles darlingi</i> ; ETN64951.1	fekmlekydraqneiyrlqsrvtadearnrleienersalatnkakedlrklqeetsrl	819

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<i>Drosophila melanogaster</i> ; AFH07983.1	qeadraalqlsrakecednarlehsrdrfdklqtdirraqgekehfselervtyel	1497
<i>Culex quinquefasciatus</i> ; EDS45873.1	qeadraamqlgrskeledkakedvdlirerldktqadlrraqakeniqaevertlyel	688
<i>Anopheles darlingi</i> ; ETN64951.1	qeadraamqlgrskeledkakedvdmirerldkcqtdlrraqekenmqtelertlyel	879

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<i>Drosophila melanogaster</i> ; AFH07983.1	erahaqaqtkaasveaakeeahyavelekmdryeksqvelrklqtdtdfgrerlrke 1557
<i>Culex quinquefasciatus</i> ; EDS45873.1	drahnsytktqasldaaqeeaaarysleiekmreryektaaemrrlqgenesfsresrrlke 748
<i>Anopheles darlingi</i> ; ETN64951.1	drshnmytkqtasldsageevarygleiekmreryektaaelrrlqgenesfsrearrmkd939

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<i>Drosophila melanogaster</i> ; AFH07983.1	enerlrekldktlmeletirgksqyesefekykdkyekiemevqnmesklhetslql 1617
<i>Culex quinquefasciatus</i> ; EDS45873.1	endrlrekdydkmmelenfrsksqyeetlekfkqkfelrenecqtmelklheatlql 808
<i>Anopheles darlingi</i> ; ETN64951.1	endrlrekdydkvivelenfrgksqyegetfdkmekekfemrenefgtmelklhetslql 999

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<i>Drosophila melanogaster</i> ; AFH07983.1	skgevakmlanqekqrselerahierekardkhekllkevdrllrqqs-svspgdpvras1676
<i>Culex quinquefasciatus</i> ; EDS45873.1	arqevqkliasqdkqrtdaerahieyekirdkhekllkemerlrnpgpsavspgalaa-- 866
<i>Anopheles darlingi</i> ; ETN64951.1	araevakmvangekqrttdserahieyekirdkhekllkeverlrnpgpsaispgaltt-- 1057

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<i>Drosophila melanogaster</i> ; AFH07983.1	tssssalsagerqeidrlrdrlekalqsrdateagrlakelekaqmhlakqqentest	1736
<i>Culex quinquefasciatus</i> ; EDS45873.1	----asvvgmgdkneidrldrlekalqsrdatemeagrlakelekaqlhlakqqeayeat	922
<i>Anopheles darlingi</i> ; ETN64951.1	--aatstgltdkneidrldrlekalqsrdateagrlakelekaqihltkqqgevyeat	1115

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<i>Drosophila melanogaster</i> ; AFH07983.1	riefermgaelgrlhrlekaeaerealqanrsggag---aaphpqlekhvqklesdvk	1793
<i>Culex quinquefasciatus</i> ; EDS45873.1	riefermsaeltrvlerlekseaketlrqstkiyekhhqqaacnnidqnvlikieadnk	982
<i>Anopheles darlingi</i> ; ETN64951.1	riefermsaeltrvlerlekseaketlrqstkiyekhhqqaannhhvehnnihkieadnk	1175

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<i>Drosophila melanogaster</i> ; AFH07983.1	qlamereqvlqleksqeilmnfqkelqnaaealqktreenrklrnghqvppvaappagp	1853
<i>Culex quinquefasciatus</i> ; EDS45873.1	qlmaerdqlvmqleksqdmlmsfqqlnaaelelqrqceenrrlknsppgahg-----	1035
<i>Anopheles darlingi</i> ; ETN64951.1	qlmaerdqlvmqleksqdmlmsfqqlnaaelelqrqceenrrlktspqqpqstgpta--	1233
	<div style="text-align: center;">** **..***..*****..** ..*.***. ** ***. *****..* *</div>	
<i>Drosophila melanogaster</i> ; AFH07983.1	spaefqamqkeiqtlqqklqeseralqaagpqqaqaaaaagasreeieqwrvkieqeksr	1913
<i>Culex quinquefasciatus</i> ; EDS45873.1	---qpqnnsqeiqnykkeitrllkqmlqet-----gargdseleqwrvvveqeknr	1082
<i>Anopheles darlingi</i> ; ETN64951.1	--aqnqataqeiqsykkeinkllkqmlqet-----gcrgdneleqwrvvveqeknr	1281
	<div style="text-align: center;">: * :***. :. **: . .:*****.**</div>	
<i>Drosophila melanogaster</i> ; AFH07983.1	admadkaaqemhkriqlmdqhikdqhaqm qkmqqmqmqqqqaaqqavqqaqqqqsaaga	1973
<i>Culex quinquefasciatus</i> ; EDS45873.1	adqaekaaielqkrmqvmeqqllkqqlqmtnmqkqmttqqpppq-----ppppqq	1132
<i>Anopheles darlingi</i> ; ETN64951.1	adqaekaaielqkrmqlemeqqllkqqlqmtnmqkqmqmqqstqqq-----	1325
	<div style="text-align: center;">** *.*** **..***..*..*..* ** ..*** ** *</div>	
<i>Drosophila melanogaster</i> ; AFH07983.1	ggadpkелеkvrgelqaacterdrfqqllellvtelekskmsnqeakqlqtaqqqvqq	2033
<i>Culex quinquefasciatus</i> ; EDS45873.1	pqipnkemdkiqeelnnavtqrdfqnqllellvqeleksqlaeqdaakkaqqqhqlqqm	1192
<i>Anopheles darlingi</i> ; ETN64951.1	spvnkkelqlqdelktavtqrdfqnqllellvqeleksqteaqaatnakqqqqqlahl	1385
	<div style="text-align: center;">: ***..*.. **..* *.***..***..***** *****. *. ... * *.. :</div>	
<i>Drosophila melanogaster</i> ; AFH07983.1	qqqvqqllqqmqqlqqaasa----gagatdvqrqqleqqkqlleevrkqidnqakategе	2089
<i>Culex quinquefasciatus</i> ; EDS45873.1	eqqiqlvqlqelqhatqaanqkaaqqagisehdr-----kqlaemkqiedatrllese	1245
<i>Anopheles darlingi</i> ; ETN64951.1	qqqiqlqqllqqvtqaanqkvaqngvseae-----kqlaemkqiedatrllese	1438
	<div style="text-align: center;">-***- ***..* *** * -- * **** ***.. .. *</div>	

<i>Drosophila melanogaster</i> ; AFH07983.1	rkiideqrkqidakrkdieekkkmaefdvqlrkrkeqmdqleqltqgggaaaageln	2149
<i>Culex quinquefasciatus</i> ; EDS45873.1	rktfedqrkvienkrkeleekeknlvfdkqlkrkeqmdqleqlkaggttaaageln	1305
<i>Anopheles darlingi</i> ; ETN64951.1	rktfedqrktietkrkdledkeknliefdkqlkrkeqmdqleqlkaggttaaageln	1498

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<i>Drosophila melanogaster</i> ; AFH07983.1	kkImdtqrqleacvkelqntkeehkkaateterllqlvqmsqeeqnakektimdlqqalk	2209
<i>Culex quinquefasciatus</i> ; EDS45873.1	kqltetqqldkitkdfneakedaqrsoaeterllqlvqmtqeeqnqkektimdlqqalk	1365
<i>Anopheles darlingi</i> ; ETN64951.1	kqltetqqmleqaskdlaeaeeaaqrsoaeterllqlvqmtqeeqnqkektimdlqqalk	1558

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<i>Drosophila melanogaster</i> ; AFH07983.1	iaqakvkqaqtqqqqqdagpagflksff	2238
<i>Culex quinquefasciatus</i> ; EDS45873.1	naqaklktaga---qpqdagpagflksff	1391
<i>Anopheles darlingi</i> ; ETN64951.1	naqaklksaga---qpqdagpagflksff	1584

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Percent Identity Matrix for bruchpilot	<i>Drosophila melanogaster</i> ; AFH07983.1	<i>Culex quinquefasciatus</i> ; EDS45873.1	<i>Anopheles darlingi</i> ; ETN64951.1
<i>Drosophila melanogaster</i> ; AFH07983.1	100.00	64.69	60.58
<i>Culex quinquefasciatus</i> ; EDS45873.1	64.69	100.00	83.58
<i>Anopheles darlingi</i> ; ETN64951.1	60.58	83.58	100.00

S1.2. Multiple sequence alignment for elav (Gene ID: 31000)

<i>Drosophila melanogaster</i> ; AAA28506.1	mdfimantgagggvdtqaqlmqsaavaaatnaaaapvqnaaavaaaqlqqqvqqa	60
<i>Anopheles merus</i> ; XP_041763802.1	-----	0
<i>Anopheles coluzzii</i> ; XP_040220033.1	-----	0
<i>Culex quinquefasciatus</i> ; XP_038115089.1	-----	0
<i>Culex pipiens pallens</i> ; XP_039431435.1	-----	0
<i>Aedes aegypti</i> ; XP_001658986.1	-----	0
<i>Drosophila melanogaster</i> ; AAA28506.1	ilqvqqqtqqavaaaaaavtqqllqqqqqavvaqqavvqqqqqaaavvqqaavqqavvp	120
<i>Anopheles merus</i> ; XP_041763802.1	-----mtnkvlaavqdlqkqqqqqqqq--qqqqq-----qq--qq	33
<i>Anopheles coluzzii</i> ; XP_040220033.1	-----mtnkvlaavqdlqkqqqqqqqq--qq--qq-----qq--qq	31
<i>Culex quinquefasciatus</i> ; XP_038115089.1	-----mtnkvlaavqdlqkqngesqqnt-----	23
<i>Culex pipiens pallens</i> ; XP_039431435.1	-----mtnkvlaavqdlqkqngesqqnt-----	23
<i>Aedes aegypti</i> ; XP_001658986.1	-----mtnkvlaavqdlqkqngesqn-t-----	22
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<i>Drosophila melanogaster</i> ; AAA28506.1	qpqqaqpntngnag-----sgsqngsngstetrtnlivnlpqmtedeirs	167
<i>Anopheles merus</i> ; XP_041763802.1	qqqqqqngangggggggeagqtvaggaagggqssdnrsrtnlivnlpqmtteeirs	93
<i>Anopheles coluzzii</i> ; XP_040220033.1	qqqqqqngangggggggeagqtvaggaagggqssdnrsrtnlivnlpqmtteeirs	91
<i>Culex quinquefasciatus</i> ; XP_038115089.1	-----taassgsdnartnlivnlpqmtteeirs	53
<i>Culex pipiens pallens</i> ; XP_039431435.1	-----taassgsdnartnlivnlpqmtteeirs	53
<i>Aedes aegypti</i> ; XP_001658986.1	-----aaaasgsetartnlivnlpqmtteeirs	52
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<i>Drosophila melanogaster</i> ; AAA28506.1	lfssvgeiesvklirdksqvyidplnpqapskgqslgygfvnyvrpqdaeqavnvInglr	227
<i>Anopheles merus</i> ; XP_041763802.1	lfssvgeivesvklvrdknviypg-----qpkgqslgygfvnyhrpqdaeqavnvInglr	147
<i>Anopheles coluzzii</i> ; XP_040220033.1	lfssvgeivesvklvrdknviypg-----qpkgqslgygfvnyhrpqdaeqavnvInglr	145
<i>Culex quinquefasciatus</i> ; XP_038115089.1	lfssvgeivesvklvrdknviypg-----qpkgqslgygfvnfhrsdaeqavnvInglr	107
<i>Culex pipiens pallens</i> ; XP_039431435.1	lfssvgeivesvklvrdknviypg-----qpkgqslgygfvnfhrsdaeqavnvInglr	107
<i>Aedes aegypti</i> ; XP_001658986.1	lfssvgeivesvklvrdknviypg-----qpkgqslgygfvnfhrsdaeqavnvInglr	106

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<i>Drosophila melanogaster</i> ; AAA28506.1	lqnktikvsfarpssdaikganlyvsglpkmtmqealeifapfgaiitsrilqnagndt	287
<i>Anopheles merus</i> ; XP_041763802.1	lqnkvkvsfarpsssegikganlyisglpktitqeeletifrpypgeiitsrvliqdgnd-	206
<i>Anopheles coluzzii</i> ; XP_040220033.1	lqnkvkvsfarpsssegikganlyisglpktitqeeletifrpypgeiitsrvliqdgnd-	204
<i>Culex quinquefasciatus</i> ; XP_038115089.1	lqnkvkvsfarpsssegikganlyisglpktitqeeleiifrpypgeiitsrvlvqdgnd-	166
<i>Culex pipiens pallens</i> ; XP_039431435.1	lqnkvkvsfarpsssegikganlyisglpktitqeeleiifrpypgeiitsrvlvqdgnd-	166
<i>Aedes aegypti</i> ; XP_001658986.1	lqnkvkvsfarpsssegikganlyisglpktitqeeletifrpypgeiitsrvlvqegnd-	165

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<i>Drosophila melanogaster</i> ; AAA28506.1	qtkgvgfirfdkreeatraiialngtppsctdpivvkfsntpgs--tskiiqpqlpafl	345
<i>Anopheles merus</i> ; XP_041763802.1	kpkgvggfirfdqrkearaiaqalngttpkgldpitvkfsntpgqnaaakvvqpaplafl	266
<i>Anopheles coluzzii</i> ; XP_040220033.1	kpkgvggfirfdqrkearaiaqalngttpkgldpitvkfsntpgqnaaakvvqpaplafl	264
<i>Culex quinquefasciatus</i> ; XP_038115089.1	kpkgvggfirfdqrkearaiaaialngttpkgldpitvkfsntpgqnstakivqpaplafl	226
<i>Culex pipiens pallens</i> ; XP_039431435.1	kpkgvggfirfdqrkearaiaaialngttpkgldpitvkfsntpgqnstakivqpaplafl	226
<i>Aedes aegypti</i> ; XP_001658986.1	kpkgvggfirfdqrkearaiaaialngttpkgldpitvkfsntpgqntaakivqpaplafl	225

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Percent Identity Matrix for elav	<i>Drosophila melanogaster</i> ; AAA28506.1	<i>Anopheles merus</i> ; XP_041763802.1	<i>Anopheles coluzzii</i> ; XP_040220033.1	<i>Culex quinquefasciatus</i> ; XP_038115089.1	<i>Culex pipiens pallens</i> ; XP_039431435.1	<i>Aedes aegypti</i> ; XP_001658986.1
<i>Drosophila melanogaster</i> ; AAA28506.1	100.00	69.37	69.21	70.22	70.22	69.86
<i>Anopheles merus</i> ; XP_041763802.1	69.37	100.00	100.00	91.39	91.39	90.53
<i>Anopheles coluzzii</i> ; XP_040220033.1	69.21	100.00	100.00	91.39	91.39	90.53
<i>Culex quinquefasciatus</i> ; XP_038115089.1	70.22	91.39	91.39	100.00	100.00	95.04
<i>Culex pipiens pallens</i> ; XP_039431435.1	70.22	91.39	91.39	100.00	100.00	95.04
<i>Aedes aegypti</i> ; XP_001658986.1	69.86	90.53	90.53	95.04	95.04	100.00

S1.3. Multiple sequence alignment for futsch (Gene ID: 6724864)

<i>Anopheles merus</i> ; XP_041782981.1	-----miirssglfgldqhtma	17
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----miirssglfgldqhtma	17
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----miirssglfgldqhtma	17
<i>Anopheles darlingi</i> ; ETN65512.1	-----mgnlv-ckepnpgttasntgntfsnlssiicpnlgskgkahpmr	43
<i>Aedes albopictus</i> ; XP_029723621.1	mpittpkvpdglpelmr glaksvikenpeniyvhaaeyfen-lirerdggldrgyqnfsa	59
<i>Drosophila melanogaster</i> ; ABW09325.1	-----mgdqpkkatttatggaagpvpegdav-mattnqdalakgagdgpa	43
<i>Aedes aegypti</i> ; XP_021710788.1	-----msgdqsgpielngtst-gingggagv-dgivtngg-----	33
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----	0
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----msagdqs splelngsgaaatgggegl-ngnatengl-----	37
<i>Anopheles merus</i> ; XP_041782981.1	yllvalalalipthasapmyesdq-----	41
<i>Anopheles arabiensis</i> ; XP_040172246.1	flvalaltlipaahsapmyesdq-----	41
<i>Anopheles coluzzii</i> ; XP_040218532.1	yllvalaltlipaahsapmyesdq-----	41
<i>Anopheles darlingi</i> ; ETN65512.1	ktyftrs-----avd-askktssg-----httstgw-----qsvgl	73
<i>Aedes albopictus</i> ; XP_029723621.1	ykvy-----adykekcrgkggngeslsggeip-----ssaggvavrsr	97
<i>Drosophila melanogaster</i> ; ABW09325.1	qdaaqep-----gqaehgepgdggd--ggddgatdagassl---p---pseiggrapldt	90
<i>Aedes aegypti</i> ; XP_021710788.1	-----ip-----gge-stmnggggg--gge--aitpggggggsea-----gglgglstvda	73
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----	0
<i>Culex pipiens pallens</i> ; XP_039443854.1	----gap-----geg-atmnggggg--ggdggvtspgggagdvseeagtgagdpvmalda	85

<i>Anopheles merus</i> ; XP_041782981.1	-----telenygestgcyynynhygegdrimtnepclnctchdrmlm	83
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----telenygestgcyynynhygegdrimtnepclnctchdrmlm	83
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----telenygestgcyynynhygegdrimtnepclnctchdrmlm	83
<i>Anopheles darlingi</i> ; ETN65512.1	hvpdg-----asnkvitppvapprrkrgatldg---ryrsd-----	107
<i>Aedes albopictus</i> ; XP_029723621.1	masdgd dsggsasatr-----grrkkrv-rkqgske-----snk----	131
<i>Drosophila melanogaster</i> ; ABW09325.1	acsdad---ggapsslaggivgppspltgcylliv-lgephse-----ehkdnil	136
<i>Aedes aegypti</i> ; XP_021710788.1	gcseg-----pssii--gvgppspltgcyllii-igephsq-----ehkdiiv	113
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----	0
<i>Culex pipiens pallens</i> ; XP_039443854.1	gcsdg-----pssii--gvgppspltgcyllii-vgephsq-----dhkdiil	125
<i>Anopheles merus</i> ; XP_041782981.1	cylrvcpftkaigqdqctiekredqccpvitcpevevqlvdhqtaspssalgatagsevg	143
<i>Anopheles arabiensis</i> ; XP_040172246.1	cylrvcpftkaigqdqctiekredqccpvitcpevevqlvdhqtaspssalgatagsevg	143
<i>Anopheles coluzzii</i> ; XP_040218532.1	cylrvcpftkaigqdqctiekredqccpvitcpevevqlvdhqtaspssalgatagsevg	143
<i>Anopheles darlingi</i> ; ETN65512.1	-----	107
<i>Aedes albopictus</i> ; XP_029723621.1	-----slekqesigsitenggeek-----kpt---s-adgslqe	162
<i>Drosophila melanogaster</i> ; ABW09325.1	-qhllkgflswdvsdchvdleeeIntitqhape-----g-earhge	176
<i>Aedes aegypti</i> ; XP_021710788.1	-qrlikgflswdatdchvdleeehtitlqale-----g-eegkhge	153
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----mgkge	5
<i>Culex pipiens pallens</i> ; XP_039443854.1	-qrlikgflswdvsdchvdleeehtitlqale-----g-eegkhge	165

<i>Anopheles merus</i> ; XP_041782981.1	sldqygcsingrfypegaqvpsnpqkpcelcycirnmttcvmqectlhidgcqp-----	197
<i>Anopheles arabiensis</i> ; XP_040172246.1	sldqygcsingrfypegaqvpsnpqkpcelcycirnmttcvmqectlhidgcqp-----	197
<i>Anopheles coluzzii</i> ; XP_040218532.1	sldqygcsingrfypegaqvpsnpqkpcelcycirnmttcvmqectlhidgcqp-----	197
<i>Anopheles darlingi</i> ; ETN65512.1	-----	107
<i>Aedes albopictus</i> ; XP_029723621.1	slipikedtp-----dieeavv---kvqahlecqaprerpfnksvsv--dsvaaasavss	212
<i>Drosophila melanogaster</i> ; ABW09325.1	rliqyasenl-----vtevlhp-qyntliqcmrnlssftrhrhiihagytfsngsw	229
<i>Aedes aegypti</i> ; XP_021710788.1	rliqyasenl-----vteilihp-qintfiqcirnllssftrhrhiihtgytfagngsw	206
<i>Culex quinquefasciatus</i> ; EDS38616.1	rliqyasenl-----vteilihp-qintfiqcirnllssftrhrhiihtgytfagngsw	58
<i>Culex pipiens pallens</i> ; XP_039443854.1	rliqyasenl-----vteilihp-qintfiqcirnllssftrhrhiihtgytfagngsw	218
<i>Anopheles merus</i> ; XP_041782981.1	iyngk-----vccpvk-ydcdhdkd-----	216
<i>Anopheles arabiensis</i> ; XP_040172246.1	iyngk-----vccpvk-ydcdhdkd-----	216
<i>Anopheles coluzzii</i> ; XP_040218532.1	iyngk-----vccpvk-ydcdhdkd-----	216
<i>Anopheles darlingi</i> ; ETN65512.1	-----	107
<i>Aedes albopictus</i> ; XP_029723621.1	vlqdageeaddadretgeaieqtveadlaaelghpincdvsyppdeted-----	263
<i>Drosophila melanogaster</i> ; ABW09325.1	ilqdgtsvadfseafqehdvqrvirayadtitmnihcadaglwhtlpekafarqcriri	289
<i>Aedes aegypti</i> ; XP_021710788.1	ilqdgtsvdfmeafrehevqrvlraypdtitmdvhcapvgnwqaiqdksfarlcrl	266
<i>Culex quinquefasciatus</i> ; EDS38616.1	vlqdgtsvdfleafqehvqrvlraypdtitmdvhcapvgnwvsiqdktlarlcrrl	118
<i>Culex pipiens pallens</i> ; XP_039443854.1	vlqdgtsvdfleafqehvqrvlraypdtitmdvhcapvgnwvsiqdktlarlcrrl	278

<i>Anopheles merus</i> ; XP_041782981.1	-stlm-----ledehtttvrpt-----pgfilt-ttvspavstdcv	250
<i>Anopheles arabiensis</i> ; XP_040172246.1	-stlm-----ledehtttvrpt-----pgfilt-ttvspavstdcv	250
<i>Anopheles coluzzii</i> ; XP_040218532.1	-stlm-----ledehtttvrpt-----pgfilt-ttvspavstdcv	250
<i>Anopheles darlingi</i> ; ETN65512.1	-----	107
<i>Aedes albopictus</i> ; XP_029723621.1	-----dpeagng-edygsapstae-----vggevigdaevln--dappngsdqvv	306
<i>Drosophila melanogaster</i> ; ABW09325.1	npvdvldtssecingfidylapmvmptslrelletsdvvgnirfthptlyvfpgggqdaa	349
<i>Aedes aegypti</i> ; XP_021710788.1	npvdvlssgseklnafvdylasmivpteisellessdvvgnirfshptlyvfpgggqdaa	326
<i>Culex quinquefasciatus</i> ; EDS38616.1	npvdvlssgsklnafvdylasmivpteisellessdvvgnirfshptlyvfpgggqdaa	178
<i>Culex pipiens pallens</i> ; XP_039443854.1	npvdvlssgsklnafvdylasmivpteisellessdvvgnirfshptlyvfpgggqdaa	338
<i>Anopheles merus</i> ; XP_041782981.1	hnge--tyadgalimtd--kpcehcycmrgdivcavqecgtplenegknctalppaagqc	306
<i>Anopheles arabiensis</i> ; XP_040172246.1	hnge--tyadgalimtd--kpcehcycmrgdivcavqecgtplenegknctalppaagqc	306
<i>Anopheles coluzzii</i> ; XP_040218532.1	hnge--tyadgalimtd--kpcehcycmrgdivcavqecgtplenegknctalppaagqc	306
<i>Anopheles darlingi</i> ; ETN65512.1	---ealkvkngfqdvfgresrrhscdithgtrpasv-----	140
<i>Aedes albopictus</i> ; XP_029723621.1	viessqknsdevdlsvddvannneeplangsveeqi-----	342
<i>Drosophila melanogaster</i> ; ABW09325.1	lfgi----ngfnmlvdggfnrkacfw---dfarhl-----	377
<i>Aedes aegypti</i> ; XP_021710788.1	lfgi----ngfnmlvdggfsrkscfw---dfvrhl-----	354
<i>Culex quinquefasciatus</i> ; EDS38616.1	lfgi----ngfnmlvdggfsrkscfw---dfvrhl-----	206
<i>Culex pipiens pallens</i> ; XP_039443854.1	lfgi----ngfnmlvdggfsrkscfw---dfvrhl-----	366

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<i>Anopheles merus</i> ; XP_041782981.1	cpdkyicdgsaaapmtttvpavtaaadeaeqeqeqvaqsfdkapeqdeqqseatlt	366
<i>Anopheles arabiensis</i> ; XP_040172246.1	cpdkyicdgsaaapmtttvpavtaaaddaeqeeeqeqvaqsfdkapeqdeqqseatlt	366
<i>Anopheles coluzzii</i> ; XP_040218532.1	cpdkyicdgsaaapmtttvpavttaaddveeqeqeqvaqsfdkapeqdeqqseatlt	366
<i>Anopheles darlingi</i> ; ETN65512.1	-pprrledslpamparqtscfeidasnd-----afsdfs-----	173
<i>Aedes albopictus</i> ; XP_029723621.1	-----dgaaeasve-----	351
<i>Drosophila melanogaster</i> ; ABW09325.1	-----drldavlmt-----	386
<i>Aedes aegypti</i> ; XP_021710788.1	-----drldavlmt-----	363
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----drldavlmt-----	215
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----drldavlmt-----	375

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<i>Anopheles merus</i> ; XP_041782981.1	ttaasverttmpqhddvvpvekeedseddqqeqehvvpqfedvqtddshe-----	417
<i>Anopheles arabiensis</i> ; XP_040172246.1	ttaasverttmpqhddvvpvekeedseddqqeqehvvpqfedvqtddshe-----	417
<i>Anopheles coluzzii</i> ; XP_040218532.1	ttaasverttmpqhddvvpvekeedseddqqeqehvvpqfedvqtddshe-----	417
<i>Anopheles darlingi</i> ; ETN65512.1	-----kvpttaelerspaaqiprvgnrks-----drffgehlstdslspeqdak	216
<i>Aedes albopictus</i> ; XP_029723621.1	-----kqdsaevqiegvdtdvde---svpvveevdesvnlp-----	384
<i>Drosophila melanogaster</i> ; ABW09325.1	-----rlnnsnvqglgavvsrkrdahvypqighffgnvp-----	420
<i>Aedes aegypti</i> ; XP_021710788.1	-----rinntnikgisavverkheahvypqighffcnip-----	397
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----rinntnikgisavverkheahvypqighfftnip-----	249
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----rinntnikgisavverkheahvypqighfftnip-----	409

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<i>Anopheles merus</i> ; XP_041782981.1	-----eaddddaqvpek---ved-----eqvatt-----	438
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----eaddddaqvpek---vdd-----eqvatt-----	438
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----eaddddaqvpek---vdd-----eqvatt-----	438
<i>Anopheles darlingi</i> ; ETN65512.1	espeqrpkrrksipkddvdkiekfvekleenkpvevsma-----	256
<i>Aedes albopictus</i> ; XP_029723621.1	dvpteepnieevesgdteevqaepivdepneqkpvdetkedivedanviksskessvdk	444
<i>Drosophila melanogaster</i> ; ABW09325.1	dr-----kgllspdgdkdrdpplldlfer-----ghgivsdllkaldlkpqccyrn	465
<i>Aedes aegypti</i> ; XP_021710788.1	er-----kgllspdgdkdrdpplldliee-----ghqivtnlkslnlkaqncyrd	442
<i>Culex quinquefasciatus</i> ; EDS38616.1	er-----kgllspdgdkdrdpplldliee-----ghqivtnlkslnlkaqncyrd	294
<i>Culex pipiens pallens</i> ; XP_039443854.1	er-----kgllspdgdkdrdpplldliee-----ghqivtnlkslnlkaqncyrd	454

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<i>Anopheles merus</i> ; XP_041782981.1	-----arpslseapeaesdhipghvgsheseedkqqeattvadldaplttm	484
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----arpslseapeaesdhipghvgsheseedkqqeattvadldaplttm	484
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----arpslseapeaesdhipghvgsheseedkqqeattvadlnaplttm	484
<i>Anopheles darlingi</i> ; ETN65512.1	-----	256
<i>Aedes albopictus</i> ; XP_029723621.1	vdeasaaddatkdgvksdaiedgaegqevpsn----kadsieevspkevneng-----	494
<i>Drosophila melanogaster</i> ; ABW09325.1	qepvn-lyhkvghgtldmyvispardskevkeflqwhagdqrlfaardsrdfnplqnl	524
<i>Aedes aegypti</i> ; XP_021710788.1	vepin-lyhkvghgtldmyiispakdskevkeflakwnaadpklfaprdskefvfpmqni	501
<i>Culex quinquefasciatus</i> ; EDS38616.1	adpin-lyhkvghgtldmyvispakdskevkeflakwhaadpklfspkdskeftfpmqni	353
<i>Culex pipiens pallens</i> ; XP_039443854.1	adpin-lyhkvghgtldmyvispakdskevkeflakwhaadpklfspkdskeftfpmqni	513

<i>Anopheles merus</i> ; XP_041782981.1	r-----pavqstt-----vlaeqegtshadvdve	509
<i>Anopheles arabiensis</i> ; XP_040172246.1	r-----pavqstt-----vlveqesttshadvdae	509
<i>Anopheles coluzzii</i> ; XP_040218532.1	r-----pavqstt-----vlaeqesttshadvdae	509
<i>Anopheles darlingi</i> ; ETN65512.1	-----	256
<i>Aedes albopictus</i> ; XP_029723621.1	-sasplvkseskdnetvgvasspkqirsveddtngnpsgegpvdkaveevaees-----	548
<i>Drosophila melanogaster</i> ; ABW09325.1	vsicallvwqpanpddtitri-----lfpgstpdfkiqegleklkhlefm	569
<i>Aedes aegypti</i> ; XP_021710788.1	isicallvwtpanpednitri-----lfpgsapeykileglekmknvefm	546
<i>Culex quinquefasciatus</i> ; EDS38616.1	isicallvwtpanpednitri-----lfpgsapeykileglekmksvefm	398
<i>Culex pipiens pallens</i> ; XP_039443854.1	isicallvwtpanpednitri-----lfpgsapeykileglekmksvefm	558
<i>Anopheles merus</i> ; XP_041782981.1	ehdvt-----gttvaptkdeqapeadavpfeeeeadeapvttkpas	549
<i>Anopheles arabiensis</i> ; XP_040172246.1	ehdvt-----gttvaptideqapeadaapfeeeeadeapvttkpas	549
<i>Anopheles coluzzii</i> ; XP_040218532.1	ehdvt-----gttvaptkdeqapeadavsfeeeadeapvttkpas	549
<i>Anopheles darlingi</i> ; ETN65512.1	----qkeaiqkssntftsqrkdiekdevpaalpktappdeapasgeneedli-----	304
<i>Aedes albopictus</i> ; XP_029723621.1	-spva-----vegpedeqadpseaqpenvngnesg-----	577
<i>Drosophila melanogaster</i> ; ABW09325.1	khstctaksiapaiqvtstrkslksaieatp----appsasykt-----	610
<i>Aedes aegypti</i> ; XP_021710788.1	rqpvcvksiapslstqaltkkslksssidkiipepilpskstkp-----	591
<i>Culex quinquefasciatus</i> ; EDS38616.1	rhpvcvksiapsistqtftkkslksssidkiipepilpskatks-----	443
<i>Culex pipiens pallens</i> ; XP_039443854.1	rhpvcvksiapsistqtftkkslksssidkiipepilpskatks-----	603

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<i>Anopheles merus</i> ; XP_041782981.1	deiaapeaeat-tv-srdetve-----qtmt--talpsqqvplasadekeneiddhhd	598
<i>Anopheles arabiensis</i> ; XP_040172246.1	deiaapeaeat-tv-srdetve-----qtmt--talpsqqvplasadekeneiddhhd	598
<i>Anopheles coluzzii</i> ; XP_040218532.1	deiaapeaeat-tv-srdetve-----qtmt--talpsqqvpltsadekeneiddhhd	598
<i>Anopheles darlingi</i> ; ETN65512.1	kyid-rtvsgnsglgsraeflmamledyndsvryegmqpieeplivpkkrksrhicddhd	363
<i>Aedes albopictus</i> ; XP_029723621.1	gsldnppenga-----pvdnvpeevevsask-n-----	604
<i>Drosophila melanogaster</i> ; ABW09325.1	tkf-spvasaa-----lavqhpqqqdnkakeaaaaa-----	641
<i>Aedes aegypti</i> ; XP_021710788.1	sekdnkildnk-----mk-----midnkltds-ksstd-m-----	619
<i>Culex quinquefasciatus</i> ; EDS38616.1	lekdnrnidnk-----lk-----midnklvdsaksssd-i-----	472
<i>Culex pipiens pallens</i> ; XP_039443854.1	lekdnrnidnk-----lk-----midnklvdsaksssd-i-----	632
	.	::
<i>Anopheles merus</i> ; XP_041782981.1	qtnaaehddgasadipeekeedeqveqeeqqaattpvvpvrda-----vpseqdqqt	652
<i>Anopheles arabiensis</i> ; XP_040172246.1	qtnavehddgasadipeekeedvqveqeeqqaavtppvvrde-----vpseqdqqt	652
<i>Anopheles coluzzii</i> ; XP_040218532.1	qtnavehddgasadipeekeedeqfeqeeqqaattpvvpvhde-----vpseqdqqt	652
<i>Anopheles darlingi</i> ; ETN65512.1	hlheklhahe---kgestkq-ekpa-aniilteasiev-aprkps---rdfs-----k	407
<i>Aedes albopictus</i> ; XP_029723621.1	-----peatksngksg-eatplksesveqidaqsa---gedip---ses	641
<i>Drosophila melanogaster</i> ; ABW09325.1	-----aaaaaasaataraka-----	658
<i>Aedes aegypti</i> ; XP_021710788.1	-----mdssadeak---lekhitkssvatvatakvtvsksviktssstes	661
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----mdssadeak---lekqltkssvatvatakvmstvk-sksstest	513
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----mdssadeak---lekqltkssvatvatakvmstvk-sksstest	673
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<i>Anopheles merus</i> ; XP_041782981.1	yqpseqevsapeqdrpavvstdkkepaqkaddepqvp-veqdfvelppavvvtelppvpt	711
<i>Anopheles arabiensis</i> ; XP_040172246.1	yqpsepevsvpeqdrpavvstdkkepaqkaddepqmp-veqdfvelppavvvtelppvpt	711
<i>Anopheles coluzzii</i> ; XP_040218532.1	yqpsepevsvpeqdrpavvsadkkepaqkaddepqvp-veqdfvelppavvvtelppvpt	711
<i>Anopheles darlingi</i> ; ETN65512.1	ykpldke-----vg--kidqefdsdeepsssgaataavv-rpsr-----t	444
<i>Aedes albopictus</i> ; XP_029723621.1	aenvesn-----dap--gseataqpedgvqensngsgeekgkaskepsl-----	683
<i>Drosophila melanogaster</i> ; ABW09325.1	----dsm-----dtda--epeheadpepadtgdeaapteqepea-----	691
<i>Aedes aegypti</i> ; XP_021710788.1	tkkidsm-----liesskkidldekkdssdagsdkdetekkvaa-----	700
<i>Culex quinquefasciatus</i> ; EDS38616.1	tkkvdnk-----lietkkieseeekdsasdagsekdetekkast-----	552
<i>Culex pipiens pallens</i> ; XP_039443854.1	tkkvdnk-----lietkkieseeekdsasdagsekdetekkast-----	712
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<i>Anopheles merus</i> ; XP_041782981.1	tsdepstteqtpeppkdeilpn-----pleadshvlsds-----mt	748
<i>Anopheles arabiensis</i> ; XP_040172246.1	tsdepstteqtpeppkdeilpn-----pleadshilsds-----mt	748
<i>Anopheles coluzzii</i> ; XP_040218532.1	tsdepstteqtpeppkdeilpn-----pleadshvlsds-----mt	748
<i>Anopheles darlingi</i> ; ETN65512.1	kqakskqrenlpsspapp---kfqkslse-----slfd-----	474
<i>Aedes albopictus</i> ; XP_029723621.1	-----d-kpes-----ekgesadepkssg-----saaasrepsvdkve	715
<i>Drosophila melanogaster</i> ; ABW09325.1	-----etepepehep-eaeqdkdvgeekkevlimkpqqatpaviaasgkdgvdaas	742
<i>Aedes aegypti</i> ; XP_021710788.1	-----e-eaipeklvqdkddakdkkdsitikedtk-----	734
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----e-eae-----kkpeedkkedtaiikeetk-----	575
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----e-eae-----kkpeedkkedtaiikeetk-----	735
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<i>Anopheles merus</i> ; XP_041782981.1	tehaptfgdr-----keddgqeqeqhvpqggadldep----vemntiipleaedqkv	797
<i>Anopheles arabiensis</i> ; XP_040172246.1	tehaptfgdr-----keddaqegeqhpvqggadldep----vemntiipldaeedqkv	797
<i>Anopheles coluzzii</i> ; XP_040218532.1	tehaptfgdr-----keddaqegeqhpvqggadldep----vemntiipldaeedqkv	797
<i>Anopheles darlingi</i> ; ETN65512.1	-----rqsreststpvksvddtpkahtprmlkriismpvteh---	513
<i>Aedes albopictus</i> ; XP_029723621.1	s-----ekegsadepkssgsakas----nep-----sldkpesek---	746
<i>Drosophila melanogaster</i> ; ABW09325.1	adatp-tgklskasakgkadmpraevpvrsridtkpp----ksmdrklakrdekk---	794
<i>Aedes aegypti</i> ; XP_021710788.1	-----vakritekssrpstarsridtkpp----kmaakpmkkkeean---	772
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----stkkigdrvsrpatarsrvdtkpp----kpttkikkkdett---	613
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----ttkkigdrvgrpatarsrvdtkpp----kpttkikkkdett---	773

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<i>Anopheles merus</i> ; XP_041782981.1	ehskeedqkvdeqdeqeqqvqehaqdvvpdthadddeqaqsgeepvtpvsvdaqpepa	857
<i>Anopheles arabiensis</i> ; XP_040172246.1	ehpkeedqkvdeqdeqdeqvqeqaqdvvpdthadaddqaqsgeepdvtpvsddaqppepa	857
<i>Anopheles coluzzii</i> ; XP_040218532.1	ehpkeedqkideqdeqdeqvqeqaqdvvpdthaddddqpqsgeevvtpvsddaqppepa	857
<i>Anopheles darlingi</i> ; ETN65512.1	-----lnadarpetpqrpaltsksssssfst--	539
<i>Aedes albopictus</i> ; XP_029723621.1	-----ngsqeepks-dkpesekdvsadepkns-	772
<i>Drosophila melanogaster</i> ; ABW09325.1	-----sspttppaar-apvaqna-----	811
<i>Aedes aegypti</i> ; XP_021710788.1	-----ksspttpkksvepkltngiskdeeskk-	799
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----ksspttpkktapeklngvskdddakk-	640
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----ksspttpkktapeklngvskdedakk-	800

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<i>Anopheles merus</i> ; XP_041782981.1	apvdeklgeddeqqsvhespdqlfpesipg-----egdclid-----gvtyen--	900
<i>Anopheles arabiensis</i> ; XP_040172246.1	apve-kvgeddeqqtvhespdqlfpesipg-----egdclid-----gvtyen--	899
<i>Anopheles coluzzii</i> ; XP_040218532.1	apve-kvgeddeqqtvhespdqlfpesipg-----egdclid-----gvtyen--	899
<i>Anopheles darlingi</i> ; ETN65512.1	-----vdlqrsricverfspedyahhgggadelvqpsklitrkiswksle	585
<i>Aedes albopictus</i> ; XP_029723621.1	-----gsa----qaskepsldkpskesvdepksggsak-----	801
<i>Drosophila melanogaster</i> ; ABW09325.1	-----kpkvlrpatksspsstpaksakeannrkvl-eskq-----	846
<i>Aedes aegypti</i> ; XP_021710788.1	----tappkttkpvtrpgkaspkstpaksakdannrkvl-earq-----	840
<i>Culex quinquefasciatus</i> ; EDS38616.1	----atgppkttkpastkpgkaspkstpaksakdannrkvl-earq-----	681
<i>Culex pipiens pallens</i> ; XP_039443854.1	----atgppkttkpastkpgkaspkstpaksakdannrkvl-earq-----	841
.		
<i>Anopheles merus</i> ; XP_041782981.1	-----gasvpa-----sgkcqvachcsnsiv--hcmvrceaapsadctpkstl	942
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----gasvpa-----sgkcqvachcsnsiv--hcmvrceaapsadctpkstl	941
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----gasvpa-----sgkcqvachcsnsiv--hcmvrceaapsadctpkstl	941
<i>Anopheles darlingi</i> ; ETN65512.1	tpatnrtpptqdtat-npcftigdaavassgntlqppevpk-rkrsttstemetiger	643
<i>Aedes albopictus</i> ; XP_029723621.1	-----sskepsldk----peseknm----sadevksggsaksskdpsldk	838
<i>Drosophila melanogaster</i> ; ABW09325.1	q-----aarvqatstvsrrvts----taservvqqaeaktaatgatqatqrkpsirr	895
<i>Aedes aegypti</i> ; XP_021710788.1	r-----paakpapakd-----smekkdspkverkpisrr	871
<i>Culex quinquefasciatus</i> ; EDS38616.1	r-----papakaa-akke-----paekkeappkverkpisrr	711
<i>Culex pipiens pallens</i> ; XP_039443854.1	r-----papakaa-akke-----paekkeappkverkpisrr	871
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<i>Anopheles merus</i> ; XP_041782981.1	pge-----ccpsys-----c---pkeasttvs---sasvesteastesdae	977
<i>Anopheles arabiensis</i> ; XP_040172246.1	pge-----ccpsys-----c---pkeasttvs---sasvesteastesdae	976
<i>Anopheles coluzzii</i> ; XP_040218532.1	pge-----ccpsys-----c---pkeasttvs---sasvesteastesdae	976
<i>Anopheles darlingi</i> ; ETN65512.1	pdastpaepscipaaqheepadsalrkfclgsfiessnvlqhhdvsvs---ldrvysas	699
<i>Aedes albopictus</i> ; XP_029723621.1	pksennes-----aiepkssgsa-ka-----skepsqdnpsdkngnmd	876
<i>Drosophila melanogaster</i> ; ABW09325.1	prgvpsk-----ra-p-apgspvkqak---pkaadlktrldkngttdd	934
<i>Aedes aegypti</i> ; XP_021710788.1	prgpts-----at-a-vggspvkakvklsekdavirkakldkngttdd	912
<i>Culex quinquefasciatus</i> ; EDS38616.1	pkgpas-----aa-a-vggspvkakvklsekdavirkakldkngttdd	752
<i>Culex pipiens pallens</i> ; XP_039443854.1	pkgpas-----aa-a-vggspvkakvklsekdavirkakldkngttdd	912
	* :	.
<i>Anopheles merus</i> ; XP_041782981.1	se-----eeqvsadv---asds gas----dvesaeattkapa-sds	1011
<i>Anopheles arabiensis</i> ; XP_040172246.1	se-----eeqvsadv---asds gas----nvesaeattkapa-sds	1010
<i>Anopheles coluzzii</i> ; XP_040218532.1	se-----eeqvsadv---asds gas----nvesaeattkapa-sds	1010
<i>Anopheles darlingi</i> ; ETN65512.1	dnken--iieqfqtflen---qinaelndpnptnnpnvakllekl---srtstasgg---	747
<i>Aedes albopictus</i> ; XP_029723621.1	epkangsakasqetsldkpnsekddgsveepkssgsakaskepsleqaepdlksdgsakv	936
<i>Drosophila melanogaster</i> ; ABW09325.1	ss-----lvstpsadeataakklq-----dl	955
<i>Aedes aegypti</i> ; XP_021710788.1	ss-----lvstpsadeagiavqkriid----ttas----aa	940
<i>Culex quinquefasciatus</i> ; EDS38616.1	ss-----lvstpsadeagvavqkrivd----svtlagtssa	784
<i>Culex pipiens pallens</i> ; XP_039443854.1	ss-----lvstpsadeagvavqkrivd----svtlagtssa	944
	.	.. :

<i>Anopheles merus</i> ; XP_041782981.1	qslstdeeddddvsdkp---seaesdsagvlddevfkpyrptepshget-----h	1059
<i>Anopheles arabiensis</i> ; XP_040172246.1	qslstdeeddddvsdkp---seaesdsagadlddevfkpyrptepshget-----h	1058
<i>Anopheles coluzzii</i> ; XP_040218532.1	qslstdeeddddvsdkp---seaesdsagadlddevfkpyrptepshget-----h	1058
<i>Anopheles darlingi</i> ; ETN65512.1	-----sdledvkiel--vgssassnnasdvddcdfpefekiekfeivgdlpkidipp	798
<i>Aedes albopictus</i> ; XP_029723621.1	psldkteseldqsgndqskessakesagesgsveavtapdeggsadagemsm-----	988
<i>Drosophila melanogaster</i> ; ABW09325.1	t---asqeldaekqre--lddlkeegevveieavfsrdemkrqqhqqika-----	1001
<i>Aedes aegypti</i> ; XP_021710788.1	a---gtsdmdaiqqqq--laelkeeqeavreieavfkrdsekikrheil-s-----	985
<i>Culex quinquefasciatus</i> ; EDS38616.1	a---sstdidpiqqqq--laelkeeqeavreieavfnkg--kvtrrevl-s-----	827
<i>Culex pipiens pallens</i> ; XP_039443854.1	a---sstdidpiqqqq--laelkeeqeavreieavfnkg--kvtrrevl-s-----	987

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<i>Anopheles merus</i> ; XP_041782981.1	inffagnrpttadyhdeiilstaaptkvpvvsaqdddvaqedpvkmeq----peqdaap	1115
<i>Anopheles arabiensis</i> ; XP_040172246.1	inffagnrpttadyhdeiilstavskvpvvstqdddvaqedpvkmeq----peqdaap	1114
<i>Anopheles coluzzii</i> ; XP_040218532.1	inffagnrpttadyhdeiilstaaptkvpvvsqdddvaqedpvkmeq----peqdaap	1114
<i>Anopheles darlingi</i> ; ETN65512.1	khaysgkrrdsieymsdwfgdsdstteekasg----gvknkpavgakgkrrsiedvgs	854
<i>Aedes albopictus</i> ; XP_029723621.1	-----	988
<i>Drosophila melanogaster</i> ; ABW09325.1	-----elre-----	1005
<i>Aedes aegypti</i> ; XP_021710788.1	-----ehr-----	988
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----ehr-----	830
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----ehr-----	990

<i>Anopheles merus</i> ; XP_041782981.1	attqasvte---salqeegtltltaergtesdesvaaeqdeqeqatttkfteet---g	1168
<i>Anopheles arabiensis</i> ; XP_040172246.1	attqasvte---salqeegtltltaergpesdesvaaeqdeqeqvttaktfaeet---g	1167
<i>Anopheles coluzzii</i> ; XP_040218532.1	attqasvte---salqeegtltltaergpesdesvaaeqddqeevttaktfaeet---g	1167
<i>Anopheles darlingi</i> ; ETN65512.1	wfsnhnmlrpsfgqefeeprsrlrrgs-----dgflgydm--nrqypfgkvrersesqsa	907
<i>Aedes albopictus</i> ; XP_029723621.1	-----ssrmgddeqepes-----e-----a-----vdepsa--pp	1011
<i>Drosophila melanogaster</i> ; ABW09325.1	-----mpaegtgdgenepde-----e-----eeyliiekeeveqytedsiveqes--sm	1047
<i>Aedes aegypti</i> ; XP_021710788.1	-----eiqdsttepee-----e-----eeyliieke--eqytedsinepes--sa	1024
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----eiqdsttepee-----e-----deyliieke--eqytedsinepes--sa	866
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----eiqdsttepee-----e-----deyliieke--eqytedsinepes--sa	1026
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<i>Anopheles merus</i> ; XP_041782981.1	ttlasvkteedse---a-----edkdakped-----ttsgvetdq	1201
<i>Anopheles arabiensis</i> ; XP_040172246.1	ttlasvkteedsv---veeg-----qrgddakped-----ttsgvetdq	1205
<i>Anopheles coluzzii</i> ; XP_040218532.1	ttlasvkteedsv---veeg-----qrgeddakped-----ttsgvetdq	1205
<i>Anopheles darlingi</i> ; ETN65512.1	emfeditkhqetpgdkegth--sler-----	931
<i>Aedes albopictus</i> ; XP_029723621.1	medeetget---ggedkvksdel---kteddsakndg---ngeettadqvnqgddeet	1060
<i>Drosophila melanogaster</i> ; ABW09325.1	tkeeeiqkhqrdsqesekkrkksaeeeeieaa--iakvea-----aerkarlegasarq	1098
<i>Aedes aegypti</i> ; XP_021710788.1	tkeeeiqkhqrdsqesekckrdsmegekqekadvvgkmeg-----etatvveiiegdkvde	1079
<i>Culex quinquefasciatus</i> ; EDS38616.1	tkeeeiqkhqrdsqesekrkresledekeekadvvgktdeaadgaaaavveliegekdea	926
<i>Culex pipiens pallens</i> ; XP_039443854.1	tkeeeiqkhqrdsqesekrkresledekeekadvvgktdeaadgaaaavveliegekdea	1086

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<i>Anopheles merus</i> ; XP_041782981.1	qd-----krvtvtadeveddkeqat-----tastissd-----kqqevskad	1239
<i>Anopheles arabiensis</i> ; XP_040172246.1	qd-----krvttvadevendkdqat-----tvstissd-----kqqevskad	1243
<i>Anopheles coluzzii</i> ; XP_040218532.1	qd-----krvttvadeveddkeqat-----tvstissd-----kqqevskad	1243
<i>Anopheles darlingi</i> ; ETN65512.1	-----kglsralpiherkvlehnssdallmkvlnre	963
<i>Aedes albopictus</i> ; XP_029723621.1	de-----skeevveepciq-----rqvpsaskipskqps-v-elddikkvd	1100
<i>Drosophila melanogaster</i> ; ABW09325.1	de-----seldvepeqskik-----a-evqdiiaa	1123
<i>Aedes aegypti</i> ; XP_021710788.1	ehpaeethqedketilekeaiedvkeepkdteklshkqdie-----e-evqdiiasa	1132
<i>Culex quinquefasciatus</i> ; EDS38616.1	eeeep--kpedke---seeekvdaeeskepekmspkhkhle-----e-evqeiiasa	973
<i>Culex pipiens pallens</i> ; XP_039443854.1	eeeep--kpevke---seeekvdaeeskepekmspkhkhle-----e-evqeiiasa	1133
	:	::
<i>Anopheles merus</i> ; XP_041782981.1	-dgytsssvted-----tavsveqdekleqpapttartveadeetv-v-----	1281
<i>Anopheles arabiensis</i> ; XP_040172246.1	-dgytsssvaad-----tpvsveqdekleqpapttvrtveadeeaa-v-----	1285
<i>Anopheles coluzzii</i> ; XP_040218532.1	-devtsssvaad-----tpvsveqdekleqpapttvrtveadedta-v-----	1285
<i>Anopheles darlingi</i> ; ETN65512.1	-hrishssahssaeklnne-----skpqemask-----stdptdeee----qkp	1003
<i>Aedes albopictus</i> ; XP_029723621.1	lasfnkdsaealfytlkkselenqesqatkpeakven----gveeneddddvvtepp	1156
<i>Drosophila melanogaster</i> ; ABW09325.1	-kdiaksrteeqlakpae-----elssptpeeklsk-----ktsdtkddqi----gap	1167
<i>Aedes aegypti</i> ; XP_021710788.1	-keiakskmetsmdglkte-----emssispdekvs----tkktsdtrdene----pep	1178
<i>Culex quinquefasciatus</i> ; EDS38616.1	-keiakskmetsmdglkte-----emssispddkiss----tkktsdtrdene----pep	1019
<i>Culex pipiens pallens</i> ; XP_039443854.1	-keiakskmetsmdglkte-----emssispddkiss----tkktsdtrdene----pep	1179
	: .. : ::	

<i>Anopheles merus</i> ; XP_041782981.1	--eqeqdqpqssddqaeeddepssttvha-----dkpsaveedeegpaqeattaraie	1332
<i>Anopheles arabiensis</i> ; XP_040172246.1	--aqeqdqpqssddqaeeddepssttvra-----dkpssveedeegpaqeatttrate	1336
<i>Anopheles coluzzii</i> ; XP_040218532.1	--aqeqdqpqssddqaeeddepssttvra-----dkpssveqdeegpaqeattarvte	1336
<i>Anopheles darlingi</i> ; ETN65512.1	l-----lsstseasvva---aeisne-----sakqssnkdsveplqaanehstll	1045
<i>Aedes albopictus</i> ; XP_029723621.1	srsvrv-spkrstfndflesspitdevskaegdgvadqdgveedenqqfnpmfa-----	1210
<i>Drosophila melanogaster</i> ; ABW09325.1	vdlpv-nlqeslpe-----ekfsatiesga-ttaptlpederipldqikedlvie	1216
<i>Aedes aegypti</i> ; XP_021710788.1	vqkehieppheshhe-----ervsataesgattaptlpederipldeikedlvie	1229
<i>Culex quinquefasciatus</i> ; EDS38616.1	vvkghieppheshhe-----ervsatgesgattaptlpederipldeikedlvie	1070
<i>Culex pipiens pallens</i> ; XP_039443854.1	vvkghieppheshhe-----ervsatgesgattaptlpederipldeikedlvie	1230

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<i>Anopheles merus</i> ; XP_041782981.1	tateqqesvpeietkrktiqtvtvap-ttvseq-----qddlektetttqpaa-saaaa	1383
<i>Anopheles arabiensis</i> ; XP_040172246.1	tateqqesvteietkrktiqtvtvap-ttvseq-----qddlektetttqpaa-saaaa	1387
<i>Anopheles coluzzii</i> ; XP_040218532.1	tateqqesvtefetkrktiqtvtvap-ttvseq-----qddlektetttqpaa-saaaa	1387
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1045
<i>Aedes albopictus</i> ; XP_029723621.1	-----asvrnkq----l-qdqlhsrfsqdd---tskl dn	1236
<i>Drosophila melanogaster</i> ; ABW09325.1	ekyv-----keetkeaeaivvatvqtlpeaaplaidtilasatkdapkdanaeal	1266
<i>Aedes aegypti</i> ; XP_021710788.1	ekyv-----keetkevevappl-----	1246
<i>Culex quinquefasciatus</i> ; EDS38616.1	ekhv-----keetkevevapp-----	1087
<i>Culex pipiens pallens</i> ; XP_039443854.1	ekhv-----keetkevevapp-----	1247

<i>Anopheles merus</i> ; XP_041782981.1	delqee----ehееkltdepeltdedvqesaapttsrptaqeeastqydhepetthkss	1439
<i>Anopheles arabiensis</i> ; XP_040172246.1	delqee----ehееvkltdpeltdednaqesaaattsrptvqeeastqydhepetthkps	1443
<i>Anopheles coluzzii</i> ; XP_040218532.1	delqee----ehqevkltdpeltdeddaqesaaattsrptgqeeastqydhvpdsthkps	1443
<i>Anopheles darlingi</i> ; ETN65512.1	-----kflskerlie-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	strraamhrsmtermldlarqdtynyvd-lrkydpd----yveeedqfdgyyignlk-----	1286
<i>Drosophila melanogaster</i> ; ABW09325.1	gelpdsgervlpmkmtfeaaqqnlrd-viktpdevadlpvheeadlglyekdsqdagaks	1325
<i>Aedes aegypti</i> ; XP_021710788.1	ptvyepplerptpakmhfsaaqqahmrd-vvktpdevadlpmhheadfeeysenkdkdeke	1305
<i>Culex quinquefasciatus</i> ; EDS38616.1	ptvyepplerptpakmhfnaaqqphmrd-vvktpdevadlpvheeadfeeygedkdkddeke	1146
<i>Culex pipiens pallens</i> ; XP_039443854.1	ptvyepplerptpakmhfnaaqqphmrd-vvktpdevadlpvheeadfeeygedkdkddeke	1306

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<i>Anopheles merus</i> ; XP_041782981.1	evhddeqpghtvssvtsekesdvpvavtvqaameqeddgdvsktteapaaqsttasnav	1499
<i>Anopheles arabiensis</i> ; XP_040172246.1	eahddeqpghtvssvtsekesdvpvavtvqtameqevdedvskateaaaahsttasnav	1503
<i>Anopheles coluzzii</i> ; XP_040218532.1	eahddeqpghtvssvtsekesdvpvavtvqaameqeddedvsktteataahsttasnav	1503
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	--h---kil---assvsadsdy-----ydqeq--aeg-----	1309
<i>Drosophila melanogaster</i> ; ABW09325.1	ishk-eesa---ke-----eketddekenkvgeie-----lg--depnk	1359
<i>Aedes aegypti</i> ; XP_021710788.1	rdtk-ekpe---avd-----saqkketevkepektkvi-----vdksaesdkl	1345
<i>Culex quinquefasciatus</i> ; EDS38616.1	rdtk-ekpv---tattaaesaapaakketeekqpektektv-----tdksaesdkl	1194
<i>Culex pipiens pallens</i> ; XP_039443854.1	rdtk-ekpv---tattaaesaapaakketeekqpektektv-----tdksaesdkl	1354

<i>Anopheles merus</i> ; XP_041782981.1	ddaiiyrvdeeednkpivkptleeevstshavqpthdevkpvedaakpqavdaqet----	1555
<i>Anopheles arabiensis</i> ; XP_040172246.1	ddaiiyrvdeeednkpivkptleeevstshavqpthdevkpvedaakpqavdaqet----	1559
<i>Anopheles coluzzii</i> ; XP_040218532.1	ddaiiyrvdeeednkpivkptleeevstshavqpthdevkpvedaakpqavdaqet----	1559
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	----smd-----dnnvqtaletiastd-----test-lpsqttiqaanrgflkrgsqnt	1352
<i>Drosophila melanogaster</i> ; ABW09325.1	dishvll-----kesvqevaekvvie-----ttve-kkqeeiveattvitqen----	1402
<i>Aedes aegypti</i> ; XP_021710788.1	cdtvkdi-----kqevqeviekvai-d-----tmve-kpp--kldtqqpsa-kd----	1384
<i>Culex quinquefasciatus</i> ; EDS38616.1	cdtvkda-----qevqeviekiek-d-----tkve-kpp--klepqtspacea----	1233
<i>Culex pipiens pallens</i> ; XP_039443854.1	cdtvkda-----qevqeviekiek-d-----tkve-kpp--klepqtspacea----	1393
<i>Anopheles merus</i> ; XP_041782981.1	dddnlispvggepehdggfhfpqeddeequeepifkptlddteqhaavplpaeip-----q	1610
<i>Anopheles arabiensis</i> ; XP_040172246.1	dddnlispvggepeqdggfhfpqeddeequeepifkptlddteqhaavplpaeip-----q	1614
<i>Anopheles coluzzii</i> ; XP_040218532.1	dddnlispvggepeqdggfhfpqeddeequeepifkptlddteqhaavplpaeip-----q	1614
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	ssnipyasfgnnainqslldfiere-----eq-----mkeaeaqaastiqrSYRRftrnk	1402
<i>Drosophila melanogaster</i> ; ABW09325.1	-----qedlmeqvk-----dk	1413
<i>Aedes aegypti</i> ; XP_021710788.1	-----qhde-----	1388
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----avde-----	1237
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----avde-----	1397

<i>Anopheles merus</i> ; XP_041782981.1	etvplepvdqi-keqedaegrttpraeqetmapitskpelpeqere---rvtpairdde	1665
<i>Anopheles arabiensis</i> ; XP_040172246.1	etvplepvdqi-keqedaeggttpraeqetmapstskpelpeqere---rvtpairdde	1669
<i>Anopheles coluzzii</i> ; XP_040218532.1	etvplepvdqi-keqedaeggttpraeqetmapstskpelpeqere---rvtpairdde	1669
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	kkllrdyhstmqfted-----qstesledypssviqikldrqpkeesdns	1448
<i>Drosophila melanogaster</i> ; ABW09325.1	eeheqkiesgiitekeakksastpee--ketsditsddelpaqladp---ttvppksakd	1468
<i>Aedes aegypti</i> ; XP_021710788.1	advlkdlesqiisse-----pei--kkqpetk-----qleqt---peqppvadd	1428
<i>Culex quinquefasciatus</i> ; EDS38616.1	aavlkdesqiiske-----pev--kaektva-----stvaa---p-vegleddd	1276
<i>Culex pipiens pallens</i> ; XP_039443854.1	aavlkdesqiiske-----pev--kaektva-----stvaa---p-vegleddd	1436
<i>Anopheles merus</i> ; XP_041782981.1	qedneieadiqsvavpekkpesvpmydeieeteqqt-vaptkqepvpttvaqeqese---	1721
<i>Anopheles arabiensis</i> ; XP_040172246.1	qedneieadiqpavpekkpevpmydeieeteqqt-vaptkqepvpttvaqeqese---	1725
<i>Anopheles coluzzii</i> ; XP_040218532.1	qkdneieadiqpavpekkpevpmydeieeteqqt-vaptkqepvpttvaqeqesk---	1725
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	fedarse-----nrrrpmyslnidey----dtaarr-----mtl--trgvam	1484
<i>Drosophila melanogaster</i> ; ABW09325.1	redtgsi-----es-pptieeiaevqakqeaqkvpapeeaiktekspas	1515
<i>Aedes aegypti</i> ; XP_021710788.1	eedkksv-----he-----evivakkvepkvpvpetsildeiwigapq	1465
<i>Culex quinquefasciatus</i> ; EDS38616.1	eddkksv-----he-----evivptkvdpkvpap--svldeiwaapd	1311
<i>Culex pipiens pallens</i> ; XP_039443854.1	eddkksv-----he-----evivptkvdpkvpap--svldeiwaapd	1471

<i>Anopheles merus</i> ; XP_041782981.1	---vqpttetagkdevspv--eqdkpeadiepeqpapvt--qsspvd-----ttpa	1765
<i>Anopheles arabiensis</i> ; XP_040172246.1	---vqptteaagtdevspv--eqdkpeadsepeqpapvt--qsspvd-----ttpa	1769
<i>Anopheles coluzzii</i> ; XP_040218532.1	---vqptteaagndevspv--eqdkpeadsepeqpapvt--qsspvd-----ttpa	1769
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	qrnstpeedsgksdnasgekksasepasnlaitegtprtssdlsee-----kkss	1535
<i>Drosophila melanogaster</i> ; ABW09325.1	ketsrpesatgsvk-----edteqtskksppvpsrpeseakdkksp	1556
<i>Aedes aegypti</i> ; XP_021710788.1	kaeekleelkqiid-----dkakettsdlvav-----kde	1495
<i>Culex quinquefasciatus</i> ; EDS38616.1	kaeekleelkqiid-----geakkttselvai-----kde	1341
<i>Culex pipiens pallens</i> ; XP_039443854.1	kaeekleelkqiid-----geakkttselvai-----kde	1501

<i>Anopheles merus</i> ; XP_041782981.1	mvqdieqeqdeqehdtepeqvhsddihsttvrva-----aadsaed-----eehdeehl	1814
<i>Anopheles arabiensis</i> ; XP_040172246.1	ivqdieqeqdeqehgtepeqvhsddihsttvrva-----vadsaed-----eehgeehl	1818
<i>Anopheles coluzzii</i> ; XP_040218532.1	ivqdieqeqdeqehdtepeqvhsddihsttvrva-----vadsaed-----eehdeehl	1818
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	tssdekenkdns--sskssgggkdsa-ces-----astln---	1567
<i>Drosophila melanogaster</i> ; ABW09325.1	fasgeasrpesvaesvkdeagkaesr-resiakthkdessldkakeqes--rreslaesi	1613
<i>Aedes aegypti</i> ; XP_021710788.1	mfkelvdrkeevmdkvkqeiidtdkkaketva-----elakaaenvtvqaaevakei	1548
<i>Culex quinquefasciatus</i> ; EDS38616.1	mvkeiverkeevdvkaevadvdqkitetvt-----elgksvdq----aagellegl	1390
<i>Culex pipiens pallens</i> ; XP_039443854.1	mvkeiverkeevdvkaevadvdqkitetvt-----elgksvdq----aagellegl	1550

<i>Anopheles merus</i> ; XP_041782981.1	ittpaavqaeqdekqqt-t-----paiassdsevtaveeeqsevqh----	1854
<i>Anopheles arabiensis</i> ; XP_040172246.1	nttpaavqaeqdekeqt-t-----paiassdsdvtpveeehpevqh----	1858
<i>Anopheles coluzzii</i> ; XP_040218532.1	ittpaavqaeqdekqqt-t-----paiaasdsdvtqveeehpdvqh----	1858
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-errk-----	1571
<i>Drosophila melanogaster</i> ; ABW09325.1	kp-----esgideksal-----askeasrpesv-tdkskepsrresiaes	1652
<i>Aedes aegypti</i> ; XP_021710788.1	vakvdavgedlhkktqqvdekvasedkiktsveqaaikaesvltsetekkeleklad	1608
<i>Culex quinquefasciatus</i> ; EDS38616.1	ttkadavsadlqqkaqqlddkvaanvdrvktevekaaakadevlttiaekkeieqlakd	1450
<i>Culex pipiens pallens</i> ; XP_039443854.1	atkadavsadlqqkaqqlddkvaanvdrvktevekaaakadevlttiatekkeieqlakd	1610
<i>Anopheles merus</i> ; XP_041782981.1	-----adkvdedeepedd-----vpvttppq	1875
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----adkvgedeepedd-----vpvattppq	1879
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----adkvgedeepedd-----vpvattppq	1879
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1571
<i>Drosophila melanogaster</i> ; ABW09325.1	lkaestkdeksappskeasrpgsvve---svkdetekskepsrresiaesakppiefrev	1709
<i>Aedes aegypti</i> ; XP_021710788.1	lkqevs-----gqidatkkqlldelnkave-----qvqekaksgis----	1644
<i>Culex quinquefasciatus</i> ; EDS38616.1	ikeeva-----eklvetskqqlledelnktle-----kttdkakggis----	1486
<i>Culex pipiens pallens</i> ; XP_039443854.1	ikeeva-----eklvetskqqlledelnktle-----kttdkakggis----	1646

<i>Anopheles merus</i> ; XP_041782981.1	vfvkpvstddeqqveqveqd-----sesdvqsvseh-----	1906
<i>Anopheles arabiensis</i> ; XP_040172246.1	vfvkpvrtdddeqqveqveqd-----seldaqsvseh-----	1910
<i>Anopheles coluzzii</i> ; XP_040218532.1	vfvkpvstddeqqveqveqd-----sesdaqsvseh-----	1910
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1571
<i>Drosophila melanogaster</i> ; ABW09325.1	srpesvidgikdesakpesrrdsplaskeasrpesvlesvkdepiksteksrresvaesf	1769
<i>Aedes aegypti</i> ; XP_021710788.1	sffggitesiktgiekvadkvetklkdkt-eqvetrqlqevtdkieelkgkepveevc---	1700
<i>Culex quinquefasciatus</i> ; EDS38616.1	sffggiadgikseiekiadkmetkikdkt-dqvetklqkvtekieelngkqaeeevs---	1542
<i>Culex pipiens pallens</i> ; XP_039443854.1	sffggiadgikseiekiadkmetkikdkt-dqvetklqkvtekieelnekqveeevs---	1702
<i>Anopheles merus</i> ; XP_041782981.1	-----attpaaifddseqtttadvaddsktvapvateqqtta	1943
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----attqaatfdseqtttadvaddnktvapvateqqtta	1947
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----attqaatfdseqtttadvaddsktvapvateqqtta	1947
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----sasmdvqklfiarqrmpvqiett-----vmra--	1599
<i>Drosophila melanogaster</i> ; ABW09325.1	kadstkdekspltskdisrpesavenvmdavgsaersqpesvtas-----rdvsrp	1820
<i>Aedes aegypti</i> ; XP_021710788.1	-----vkkevtvpepseqtigfeqsfgy-ertftq-----	1730
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----qpa-----epeqtgfdapfgy-ertftq-----	1564
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----qpa-----epeqtgfdapfgy-ertftq-----	1724

<i>Anopheles merus</i> ; XP_041782981.1	aplqdgekedsekpvsddasapaad-----ddesqeegteqtdkppkvpvaqaa	1994
<i>Anopheles arabiensis</i> ; XP_040172246.1	apvqdgekedsekpvsddasapaad-----ddesqeegteqtdtpkvpvaqaa	1998
<i>Anopheles coluzzii</i> ; XP_040218532.1	apvqdgekedsekpvsddasapaad-----ddesqeegseqqthtpskvpvaqaa	1998
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----qpkhl-----	1604
<i>Drosophila melanogaster</i> ; ABW09325.1	esvaesekddtdkpesvvesvipasdvve-----iekgaadk-----	1857
<i>Aedes aegypti</i> ; XP_021710788.1	-elrethittldspvtdvdvkvdmkssvnpqhidedkeleesq-----	1776
<i>Culex quinquefasciatus</i> ; EDS38616.1	-elrethittldspvseadkmaelsavsipqhidedkeleeietqn-----	1610
<i>Culex pipiens pallens</i> ; XP_039443854.1	-elrethittldspvseadkmaelsavsipqhidedkeleeietqn-----	1770
<i>Anopheles merus</i> ; XP_041782981.1	ddvsedsmyptepvpatnvadvteavlqdsqegeqvehdddeeqtrttlppqvtqdekyq	2054
<i>Anopheles arabiensis</i> ; XP_040172246.1	ndvseetmyptepvpatnvadvteavmkdsqeddqvehdddeeqtrttlppqvtqdekyq	2058
<i>Anopheles coluzzii</i> ; XP_040218532.1	ddvsedsmyptepvpatnvtadvteavlqdsqedeqvehdddeeqtrttlppqvtqdekyq	2058
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1604
<i>Drosophila melanogaster</i> ; ABW09325.1	----ekgvfvsle---igkpdspsevisrp--gpvves-----vkpesr--resst	1897
<i>Aedes aegypti</i> ; XP_021710788.1	----magsyviee---vkystfeeanlreikeeeedr-----vtpqkddkkss	1820
<i>Culex quinquefasciatus</i> ; EDS38616.1	----msgsymiee---vkysfedanlrdikeeeedr-----tsppqkdeksft	1654
<i>Culex pipiens pallens</i> ; XP_039443854.1	----msgsymiee---vkysfedanlrdikeeeedr-----tsppqkdeksft	1814

<i>Anopheles merus</i> ; XP_041782981.1	pq-----pqeadaiakptepeqeapmed-----	2077
<i>Anopheles arabiensis</i> ; XP_040172246.1	pq-----pqeadaiakptepeqeapmed-----	2081
<i>Anopheles coluzzii</i> ; XP_040218532.1	pq-----pqeadaiakptepeqeapmed-----	2081
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----rkriks-----	1610
<i>Drosophila melanogaster</i> ; ABW09325.1	----eivlpchaedskepsrpeskveclkdesevlkgstrresvaesdkssqpfketsrp	1953
<i>Aedes aegypti</i> ; XP_021710788.1	pklepfvvpqra-----rtpedvakivanvaevlksdkdleeiip-----gf----dp	1864
<i>Culex quinquefasciatus</i> ; EDS38616.1	pklepavqptrs-----rtpedvakivanvaevlksdkditeiip-----gf----dp	1698
<i>Culex pipiens pallens</i> ; XP_039443854.1	pklepavqptrs-----rtpedvakivanvaevlksdkditeiip-----gf----dp	1858

<i>Anopheles merus</i> ; XP_041782981.1	-----evefepeqdkqtaapqaveeqdqhttpstvtssasldeevepeadkeed	2127
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----evefepeqekqtaapqaveeqdqhttpstvtssasldeevepeadkeed	2131
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----evefepeqekqtaapqaveehdqhttpstlssasldeevkpeadkeed	2131
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----agmirk-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	esavgsmkdesmskepsrre--svkdgaagsret--srpasvaesakdga-----dd-	2001
<i>Aedes aegypti</i> ; XP_021710788.1	h-----el----er----klsqgaareedigtvqrmlvtassedgg-----eet	1900
<i>Culex quinquefasciatus</i> ; EDS38616.1	k-----el----er----klsqgtareedvstvqrmlvtassedgg-----eet	1734
<i>Culex pipiens pallens</i> ; XP_039443854.1	k-----el----er----klsqgtareedvstvqrmlvtassedgg-----eet	1894

<i>Anopheles merus</i> ; XP_041782981.1	tmgekvhittarvpamesddkhedqpeadlpepsigvade-----eds-----	2170
<i>Anopheles arabiensis</i> ; XP_040172246.1	tmdekvhvttarvpametddkhedqpeadlsepsigdade-----eds-----	2174
<i>Anopheles coluzzii</i> ; XP_040218532.1	tmdekvhvttarvpametddkhedqpeadlpepsigdade-----dds-----	2174
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	-----lkelsrpes-----ttqskeagsikdeksplaseearpasvaesvkde	2045
<i>Aedes aegypti</i> ; XP_021710788.1	vicpdgtitfskattpep-----pissgkttpeikvdedave-----	1936
<i>Culex quinquefasciatus</i> ; EDS38616.1	vicppgtitfskattpep-----ptsgkttpeikvdee-----	1767
<i>Culex pipiens pallens</i> ; XP_039443854.1	vicppgtitfskattpep-----ptsgkttpeikvdee-----	1927
<i>Anopheles merus</i> ; XP_041782981.1	-----ysttfatpertglldaeqd-----kkp	2192
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----ysttfatpertglldaeqa-----tkp	2196
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----ysttfatpertglldaeqd-----tkp	2196
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	aekskeesrresvaeksplpskea---srpasvaesikdea--ekskeesrresvaeksp	2100
<i>Aedes aegypti</i> ; XP_021710788.1	-----vkepsevrpekqlpevkqdekaspssgksspdllktsptsieek-----dkhe	1984
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----seakpekpslpevkpdgktsptssgksspdllktsptsieek-----dkhe	1812
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----seakpekpslpevkpdgktsptssgksspdllktsptsieek-----dkhe	1972

<i>Anopheles merus</i> ; XP_041782981.1	veketadsnttvqppspmy---desiepeadsqhkdap-----	2227
<i>Anopheles arabiensis</i> ; XP_040172246.1	vekemaesnttvqppspvy---desiepeadsqhkdap-----	2231
<i>Anopheles coluzzii</i> ; XP_040218532.1	veketaesnttvqppspvy---deaiepeadsqhkdap-----	2231
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	lpskeasrpa--sv-----aesikdeaeksreesrresva-----eksplp	2139
<i>Aedes aegypti</i> ; XP_021710788.1	lpekvwieak--ktpekitedrkesiaeqyaq-iddsrresaistfserdytkdessild	2041
<i>Culex quinquefasciatus</i> ; EDS38616.1	lpeksadakk--tpekkiieerkesiadqydr-iddsrresaistfserdytkdessfvd	1869
<i>Culex pipiens pallens</i> ; XP_039443854.1	lpeksadakk--tpekkiieerkesiadqydr-iddsrresaistfserdytkdessfvd	2029

<i>Anopheles merus</i> ; XP_041782981.1	-----s-----stalpvt-----taaaleedevqdndk	2250
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----s-----stalpvt-----taapleedevqdndk	2254
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----s-----stalpvt-----taapleedevqdndk	2254
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	skeasrpaesvaesikdeaeksreesrresvaeksplpskeasrpaesvaesikdeaekske	2199
<i>Aedes aegypti</i> ; XP_021710788.1	erdssrahsisshisdike-----dvadvksvteflkesdkqqev	2081
<i>Culex quinquefasciatus</i> ; EDS38616.1	erdssrahsisshisdike-----daadvksvaeifketdekqde	1909
<i>Culex pipiens pallens</i> ; XP_039443854.1	erdssrahsisshisdike-----daadvksvaeifketdekqde	2069

<i>Anopheles merus</i> ; XP_041782981.1	dgkstt--vqpaliseedaqpsttaasvaeper--dlpsegtvvgda-----qdeeqt	2300
<i>Anopheles arabiensis</i> ; XP_040172246.1	dgkatt--vqpaliseedsqpsttaasvqgeper--dlpsegtvvsda-----qdeeqt	2304
<i>Anopheles coluzzii</i> ; XP_040218532.1	dgkatt--vqpaliseedrqpsttaasvqaeper--dlpsegtvvsda-----qdeeqt	2304
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	esrresvaeksplpskeasrpasvaesikdeaekskeesrresvaeksp-----lp-s	2251
<i>Aedes aegypti</i> ; XP_021710788.1	ftepekqkdsltkseelsspesitsq-----ktvseksvaaevlmkseekipqe	2132
<i>Culex quinquefasciatus</i> ; EDS38616.1	vg-----kattkkadelsspsdsvtsq-----ktvseksvadkpltdddka-----	1949
<i>Culex pipiens pallens</i> ; XP_039443854.1	vg-----katmkkadelsspsdsvtsq-----ktvseksvadkpltdddka-----	2109

<i>Anopheles merus</i> ; XP_041782981.1	deattaasvsesd-----ekvqptvssttglpvafdave---vgatseeehddae	2347
<i>Anopheles arabiensis</i> ; XP_040172246.1	deattpasvpesd-----ekvqptvssttglpvafdave---vgatseeehddae	2351
<i>Anopheles coluzzii</i> ; XP_040218532.1	deattpaslpesd-----ekvqptvssttglpvafdave---vgatseeehddae	2351
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	keasrpasvaesikdeaekskeesrresvaeksplp-----skeasrpasvaesikdeae	2306
<i>Aedes aegypti</i> ; XP_021710788.1	tqssrpesaashi-----sskspldnvstspveisgpesa-----	2167
<i>Culex quinquefasciatus</i> ; EDS38616.1	--askpesvadek-----tts--ieakleaekeasrpasaase-----	1983
<i>Culex pipiens pallens</i> ; XP_039443854.1	--askpesvadek-----tts--ieakleaekeasrpasaase-----	2143

<i>Anopheles merus</i> ; XP_041782981.1	qpqt---ddl nad-desseeaeslaavttrap-----ekvsttaepas	2387
<i>Anopheles arabiensis</i> ; XP_040172246.1	qpqt---ddl nad-desseeaeslaavttrap-----ekvsttaepas	2391
<i>Anopheles coluzzii</i> ; XP_040218532.1	qpqt---ddl nad-desseeaeslaavttrap-----ekvsttaepas	2391
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	kskeetrresvaeksplpskeasrpasvaesikdeaekskeesrresaae-----ksp	2359
<i>Aedes aegypti</i> ; XP_021710788.1	-----iptekspivdtksdntntckieakeqsrseasaasekm-----e	2205
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----kapseksvekeaate-ksptaeaskepsrpesaashvsekaasek	2027
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----kapseksvtaeavk---adekeaskepsrpesaashvsekaasek	2185

<i>Anopheles merus</i> ; XP_041782981.1	tpvkevsaeeitpkpe-vyttvaesdsqvteqp-----ttvqaeagtste	2433
<i>Anopheles arabiensis</i> ; XP_040172246.1	ipvkevsaeeitpkpe-vyttvaesdsqvteqp-----ttvqaeagtste	2437
<i>Anopheles coluzzii</i> ; XP_040218532.1	tpvkevsaeeitpkpe-vyttvaesdsqvteqp-----ttvqaeagtste	2437
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	lpskeas-----rpsasvaesvkdeadkskeesrresmaesgkaqsikgdqspkvevrsrp	2413
<i>Aedes aegypti</i> ; XP_021710788.1	dgakeip-----rpesvsvnvsekvpsdni-----e-gqqdskqssrp	2242
<i>Culex quinquefasciatus</i> ; EDS38616.1	idvkeas-----rpesvashvsekaaseks-----a-tlekpeessrp	2064
<i>Culex pipiens pallens</i> ; XP_039443854.1	idvkeas-----rpesvashvsekaaseks-----a-tlekpeessrp	2222

<i>Anopheles merus</i> ; XP_041782981.1	vt---aahadttttskpsqdeiqttaaavdvirde---eqhseapeevvsqep---a-	2483
<i>Anopheles arabiensis</i> ; XP_040172246.1	vt---aahadttttskpaqdeiqttaaavdvirde---eqqhseapeevvsqep---a-	2487
<i>Anopheles coluzzii</i> ; XP_040218532.1	vt---aahadttttskpsqdeiqttaaavdvirde---eqhhseapeevvsqep---a-	2487
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	esvaesvkddpvkskepsrresvagsvtadsarddqspleskgasrpesvvdsvkdeaek	2473
<i>Aedes aegypti</i> ; XP_021710788.1	esvasykgegavddkepsqpetilscgdvsatkadikpedikevsrpesvasvnekddt	2302
<i>Culex quinquefasciatus</i> ; EDS38616.1	asaasqaseka-----asekaeakeasrsesvashvsekaas	2101
<i>Culex pipiens pallens</i> ; XP_039443854.1	asaasqaseka-----asekaeakeasrsesvashvsekaas	2259

<i>Anopheles merus</i> ; XP_041782981.1	-----vttstaattaqpvaa-----etdgpvressqpatttqedla	2520
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----vttstaattaqpvaa-----etdgpvressqpatttqedla	2524
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----vttstaattaqpvaa-----etdgpvressqpatttqedla	2524
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	qesrresktesvippkakddkspkevlqpvsmtetiredadqpmkpsqaes--rresia	2530
<i>Aedes aegypti</i> ; XP_021710788.1	ekkaatks-e-----sp--ashptsietektsaetkessrpesvas--l---vs	2343
<i>Culex quinquefasciatus</i> ; EDS38616.1	eksvsek-----aaveqaesktdepsrpesaas--h---vs	2132
<i>Culex pipiens pallens</i> ; XP_039443854.1	eksvsek-----aaveqaesktdepsrpesaas--h---vs	2290

<i>Anopheles merus</i> ; XP_041782981.1	sstvaapvaaqddkldekvdq-----avvpavpekppvsddseeqqeavkptftede-	2574
<i>Anopheles arabiensis</i> ; XP_040172246.1	sstvaapvaahddkldekvdq-----avvpavpekppvsddseeqqeavkptftede-	2578
<i>Anopheles coluzzii</i> ; XP_040218532.1	sstvaapvaaqddkldekvdq-----avvpavpekppvsddseeqqeavkptftede-	2578
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	esikassprdeksplaskeasrpgsvaesikydlkdpqiikddksteh--srresledks	2588
<i>Aedes aegypti</i> ; XP_021710788.1	ek-----alpektdd-----	2353
<i>Culex quinquefasciatus</i> ; EDS38616.1	ek-----aveskltteqqsrpdsaashvseketap-----kep--srlesaasqv	2175
<i>Culex pipiens pallens</i> ; XP_039443854.1	ek-----aveskltteqqsrpdsaashvseketap-----kep--srpesaasqv	2333
<i>Anopheles merus</i> ; XP_041782981.1	-hddqqkvqepvvgvsees-----sssspakptqqpetv	2608
<i>Anopheles arabiensis</i> ; XP_040172246.1	-hddqqkvpepevvgvsees-----sspakptqqpetv	2610
<i>Anopheles coluzzii</i> ; XP_040218532.1	-hddqqkvqepvvgvsees-----sslakptqqpetv	2610
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	avtseksvsrplsvasdheaavaied-----dakssispkdksrpgfv	2631
<i>Aedes aegypti</i> ; XP_021710788.1	----skevsrpesaashisdclvseqketipseketkespraesvasqetkehsrpesv	2409
<i>Culex quinquefasciatus</i> ; EDS38616.1	aekvdvkvsrpesaashvseksadk-----lsepkeasrpasa	2214
<i>Culex pipiens pallens</i> ; XP_039443854.1	aekvdvkvsrpesaashvseksadk-----lsepkeasrpasa	2372

<i>Anopheles merus</i> ; XP_041782981.1	gpsygapgqhydtgyghmppyppssyeddygeedpaafgpgtcryggklyvsaaqipr	2668
<i>Anopheles arabiensis</i> ; XP_040172246.1	gpsygapgqhydtgyghmppyppssyeddygeedpaafgpgtcryggklyvsaaqipr	2670
<i>Anopheles coluzzii</i> ; XP_040218532.1	gpsygapgqhydtgyghmppyppssyeddygeedpaafgpgtcryggklyvsaaqipr	2670
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	aetvsspieeatmefskievve-----ksslals-lqggsggklqtdsspvdv	2678
<i>Aedes aegypti</i> ; XP_021710788.1	lsqks-----dk---pd-----n-----	2419
<i>Culex quinquefasciatus</i> ; EDS38616.1	lsdka-----as----dksaesgkve-----	2231
<i>Culex pipiens pallens</i> ; XP_039443854.1	lsdka-----as----dksvesgkve-----	2389

<i>Anopheles merus</i> ; XP_041782981.1	ddpcdfcfcfrsdiiclqqscpppisgcneepiagfccpryecpvsmatvlnvtt-----	2723
<i>Anopheles arabiensis</i> ; XP_040172246.1	ddpcdfcfcfrsdiiclqqscpppisgcneepiagfccpryecpvsmatvlnvtt-----	2725
<i>Anopheles coluzzii</i> ; XP_040218532.1	ddpcdfcfcfrsdiiclqqscpppisgcneepiagfccpryecpvsmatvlnvtt-----	2725
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	-aegdfshavas---vs-t-----vtptltkpaelaqigaaktvsspl	2716
<i>Aedes aegypti</i> ; XP_021710788.1	-----	2419
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----	2231
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----	2389

<i>Anopheles merus</i> ; XP_041782981.1	sttttttlpphflshaykghvqkrgcqiqgkp--ynvgetvasasgpcmrctcggdgq-	2780
<i>Anopheles arabiensis</i> ; XP_040172246.1	sttttttlpphflshaykghvqkrgcqiqgkp--ynvgetvasasgpcmrctcggdgq-	2782
<i>Anopheles coluzzii</i> ; XP_040218532.1	sttttttlpphflshaykghvqkrgcqiqgkp--ynvgetvasasgpcmrctcggdgq-	2782
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	dealrtpsapehisrads-----paecaseeiasqdkspqvlkessrpawvaeskddaaq	2771
<i>Aedes aegypti</i> ; XP_021710788.1	-----kqeamkgssrpesvasdvgeki-	2441
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----adkdvkeasrpesaasvvgdke-	2253
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----adkdvkeasrpesaasvigdke-	2411

<i>Anopheles merus</i> ; XP_041782981.1	m-----qcepkac-----spepmlqqmiavaaa	2803
<i>Anopheles arabiensis</i> ; XP_040172246.1	m-----qcepkac-----spepmlqqmiavaaa	2805
<i>Anopheles coluzzii</i> ; XP_040218532.1	m-----qcepkac-----spepmlqqmiavaaa	2805
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	lkssvedlrspvasteisrpaasetasspieeapkdfaefeqaeka--vlptlielkgn	2829
<i>Aedes aegypti</i> ; XP_021710788.1	-----tsee-----kseeikdgsrpesvasqivetts	2469
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----ekepsrpv-----saapseklvkeasrpesaashtsekdda	2290
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----ekepsrpv-----saapseklvkeasrpesaashtsekd--	2446

<i>Anopheles merus</i> ; XP_041782981.1	-----r-----	2804
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----r-----	2806
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----r-----	2806
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	lptlsspvdvahgdfpqtstptssptvasvqp-aelskvdiekta-----sspideapks	2883
<i>Aedes aegypti</i> ; XP_021710788.1	-----rvakdvdekqtarsesvashvseksst	2496
<i>Culex quinquefasciatus</i> ; EDS38616.1	lvais--ddkkdgkepsr--p---esvashvsekaeektdvkeasrpesvashvsekpaa	2343
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----dkkdgkepsr--p---esvashvsekaeektdvkeasrpesvashvsekpaa	2493
<i>Anopheles merus</i> ; XP_041782981.1	-----rr-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----rr-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----rr-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	li--gcpaeerpespaesa--kdaae--svekskdarppsvvestkadstkgdispspe	2937
<i>Aedes aegypti</i> ; XP_021710788.1	ekapaameasrpesvtslisdket---kkaeskeasrpesavshisek-eevksss---	2549
<i>Culex quinquefasciatus</i> ; EDS38616.1	ek--aethasrpesvashvsekdateeqtkteakeasrpesvashvsek-issdksp---	2397
<i>Culex pipiens pallens</i> ; XP_039443854.1	ek--aethasrpesvashvsekdateeqtkteakeasrpesvashvsek-issdksp---	2547

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	svlegpkddvekskessrppsvsasitgdstk-----dvsrpsasvsvkdehdk	2987
<i>Aedes aegypti</i> ; XP_021710788.1	-svekdvaktdeakeasrpdsvashvsekdake-----asrpsavshvseqldt	2598
<i>Culex quinquefasciatus</i> ; EDS38616.1	-lvd-kveekptgkeesrpesvashvsekaasdksshldkpeesrpasaasqasekaas	2455
<i>Culex pipiens pallens</i> ; XP_039443854.1	-lvd-kveekstgkeesrpesvashvsekaasdksshldkpeesrpasaasqasekatf	2605

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	aesrresiakvesvideagksdsksssqdsqkdekstlaskeasrresvveskdda-ek	3046
<i>Aedes aegypti</i> ; XP_021710788.1	-----ykletkeasrpesrtshtseiidak	2623
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----ekpde-----	2460
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----ekpde-----	2610

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	sesrpesviasgevpreskspldskdtsrpgsmvesvtaede--kseqqsrrsesvaesv	3104
<i>Aedes aegypti</i> ; XP_021710788.1	lkeepklvetkd--v---aqpdakmeetsrpesvvshasekvstdkateavrpdsteshi	2678
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----keasrpesvvshvsekaaseksatlekp-----	2488
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----keasrpesvvshvsekaaseksatlekp-----	2638
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	kadtckdgsqeasrpssvdellkdddekqesrrqsitgshkamstmgdespmdkadksk	3164
<i>Aedes aegypti</i> ; XP_021710788.1	--gakattmqeetsrpmsvasnv-----sekld-tkkeepk	2711
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----eessrptsasqa-----setap-sekqdak	2513
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----eessrptsasqa-----setap-sekqdak	2663

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	epsrpesvaesikhentk-----deespl-----	3188
<i>Aedes aegypti</i> ; XP_021710788.1	dssrpesviseatsdkfdek-----q-----kdtlqsvasqe	2743
<i>Culex quinquefasciatus</i> ; EDS38616.1	easrpesaashvsekaaseksamlekpeekeasrpsatsqvsekatsekdtpeaktdgk	2573
<i>Culex pipiens pallens</i> ; XP_039443854.1	easrpesaashvsekaaseksamlekpeekeasrpsatsqvsekatsekntpeaktdgk	2723
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	-gsrrdsvaesik-sditkgeksplpskevsvgsikdekaesrresvaesvkpes	3246
<i>Aedes aegypti</i> ; XP_021710788.1	ivktsekveseliasqvsektsvkseveessrpesvashlsekas-----	2788
<i>Culex quinquefasciatus</i> ; EDS38616.1	easrsesvashvsekaasdkaeekpaskeasrpesvashvsekaa-----	2618
<i>Culex pipiens pallens</i> ; XP_039443854.1	easrsesvashvsekaasdkaeekp-----	2748

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	skdatsappskehsrpesvlgslkdegdktsrrvsvadsikdeksllvsqearpesea	3306
<i>Aedes aegypti</i> ; XP_021710788.1	sdkvei---kdssrpesvashisektssad-----aks-----	2818
<i>Culex quinquefasciatus</i> ; EDS38616.1	sdkaeekpaskeasrpesvashvsekaasek-----satlekp-----	2656
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----askeasrpesvashvsekaasek-----satlekp-----	2778

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	eslkdaaapsqetsrpesvtesvkdgkspvaskeasrpaenakdsadeskeqrpesl	3366
<i>Aedes aegypti</i> ; XP_021710788.1	-----paasrpdsvashssdkvaekedikkeel	2846
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----eessrpasaasqaseka-----	2673
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----eessrpasatsqaseka-----	2795

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	pqskagsikdeksplaskdeaeksesrresvaeqplvskevsrpsasvaesvkdeae-	3425
<i>Aedes aegypti</i> ; XP_021710788.1	haat-----qkevkeaqrpesasshv-----	2867
<i>Culex quinquefasciatus</i> ; EDS38616.1	-pse-----kpdakeasrpdasaashvsekaas	2699
<i>Culex pipiens pallens</i> ; XP_039443854.1	-pse-----kpdakeasrpdasaashvsekaas	2821

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	-kskeesplmskeasrpasvagsvkdeaeksesrr-----esvaek-----sp	3469
<i>Aedes aegypti</i> ; XP_021710788.1	-----sdkpevkdtstrpesvashasekgpsdkidikdet--kglvqpmplvpsqektdskq	2920
<i>Culex quinquefasciatus</i> ; EDS38616.1	eksmtdkpeekeasrpasaashvsekaaseksatlekpddkessrps-----salsq	2752
<i>Culex pipiens pallens</i> ; XP_039443854.1	eksttdkpeekeasrpasaashvsekaaseksatlekpddkessrps-----salsq	2874

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	lpskeasrpasvaesvkdeadkskeesrresgaeksplaskeasrpasvaesikdeaeks	3529
<i>Aedes aegypti</i> ; XP_021710788.1	deknelsrpescashvsekemset-----tetklgsmevaqlksias----qasek	2967
<i>Culex quinquefasciatus</i> ; EDS38616.1	adekeasrpesaashvsekvksegt-----kpedk---pvsrpesmvg----etkps	2796
<i>Culex pipiens pallens</i> ; XP_039443854.1	adekeasrpesaashvsekvksegt-----khedk---pvsrpesmdg----etkps	2918
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	keesrresvaeksplpskeasrptsvaesvkdeaekskeesrdsvaeksplaskeasrp	3589
<i>Aedes aegypti</i> ; XP_021710788.1	---tstevietkvvskepsrpesvashtseh-----aetk-----sdakessrs	3009
<i>Culex quinquefasciatus</i> ; EDS38616.1	----dkaedkpdgkqakeasrpessashvsekaasdktedk-----qakeasrp	2843
<i>Culex pipiens pallens</i> ; XP_039443854.1	----dkvedkpedkqakeasrpv-----sekaasdktedk-----qakeasrp	2959

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	asvaesvqdeaekskeesrresvaeksplaskeasrpsasvaesikdeaekskeesrresv	3649
<i>Aedes aegypti</i> ; XP_021710788.1	asvashvsdks-----epkpevedasrpesvashtsdkehstekeskstye	3055
<i>Culex quinquefasciatus</i> ; EDS38616.1	esvashvsekaasdkpla---dkaeetsaskeasrpesvashvsekaasekst-----	2894
<i>Culex pipiens pallens</i> ; XP_039443854.1	esvashvsekaasdkppla---dkaeetsaskeasrpesvashvsekaasekst-----	3010

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	aeksplaskeasrptsvaesvkdeaekskeessrdsvaeksplaskeasrpsasvaesvqd	3709
<i>Aedes aegypti</i> ; XP_021710788.1	ikgqlpeskeastlesatnvtgkvptdd-----gk-----	3086
<i>Culex quinquefasciatus</i> ; EDS38616.1	---qlekpeessrpvsaaashvsekavsek-----adametsrpesvashvse	2938
<i>Culex pipiens pallens</i> ; XP_039443854.1	---qlekpeessrpvsaaashvsekavsek-----adaketrspevvshvse	3054

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	eaekskeesrresvaeksplaskeasrpasvaesvkddaekskeesrres-----v	3760
<i>Aedes aegypti</i> ; XP_021710788.1	na-----etnithasvknedskpasilsqidekalssvkdtparpekepsvtdsq	3136
<i>Culex quinquefasciatus</i> ; EDS38616.1	ke-----saevqiktedketsrpasvashvsekaasek-----s	2972
<i>Culex pipiens pallens</i> ; XP_039443854.1	ke-----saevqiktedkeasrpasvashvsekaasek-----s	3088

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	aeksplaskeasrpasvaesvkdeaekskeesrresvaeksplpskeasrptsvaesvkd	3820
<i>Aedes aegypti</i> ; XP_021710788.1	cgkeqplkesdsrptsaaashvsekv-----stdktp--ekeesrpasavshvse	3183
<i>Culex quinquefasciatus</i> ; EDS38616.1	atlekpddkepsrpesaashvseka-----asdkakpdekeasrpesvvsqase	3021
<i>Culex pipiens pallens</i> ; XP_039443854.1	vtleksddkelsrpesaashvseka-----asdkakpdekeasrpesvvsqase	3137

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	eaekskeesrresvaeksslaskkasrpaesvkdeaekskeesrresvaeksplask	3880
<i>Aedes aegypti</i> ; XP_021710788.1	sapsdk-----ldiik---aedkdywrpassashvsekss-----tidavvidqk	3225
<i>Culex quinquefasciatus</i> ; EDS38616.1	kv-----svad---kseekvsrpesqasavdektv-----ektvselqvds	3060
<i>Culex pipiens pallens</i> ; XP_039443854.1	ka-----svad---kseekvsrpesqasavdektv-----ektvselqvds	3176
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	easrpaesvkdeaekskeesrresvaeksplpskeasrptsvaesvkdeadkskees	3940
<i>Aedes aegypti</i> ; XP_021710788.1	espapistvsptieqeqkepsrsqs-aasek-----	3255
<i>Culex quinquefasciatus</i> ; EDS38616.1	ds-rpasaashtsdkaepasekiqv-assekapeqkpeak-----d-----	3099
<i>Culex pipiens pallens</i> ; XP_039443854.1	ds-rpasaashtsdkaepasekiqv-vssektepeqkleak-----d-----	3215

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	rresgaeksplasmeasrptsvaesvkdetekskeesrresvteksplpskeasrptsva	4000
<i>Aedes aegypti</i> ; XP_021710788.1	-----veetsrpvsvasd-----kaktveskaddkeasrptsaa	3289
<i>Culex quinquefasciatus</i> ; EDS38616.1	----dkpsaddktsqdrpassashvsk-----eseketarkesiisekeasrptsva	3148
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----dktsqdrpassashvsk-----eseketarkesiisekeasrptsva	3258

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	esvkdeaekskeesrresvaeksplaskessrpasvaesikde-----aegtkqesrre	4054
<i>Aedes aegypti</i> ; XP_021710788.1	shksekdsh-kaef-----ekdssrpassashasekgsvlqetestkte----	3332
<i>Culex quinquefasciatus</i> ; EDS38616.1	shvsekdaavkves-----ekeasrpassashvse-----	3178
<i>Culex pipiens pallens</i> ; XP_039443854.1	shvsekdaavkves-----ekeasrpassashvse-----	3288

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	smpesgkaesikgdqsslasketsrpdsvvesvkdetekpegsaidksqvasrpesvavs	4114
<i>Aedes aegypti</i> ; XP_021710788.1	emdiav-----kveskddkdpsrsasvashvse-tdkev-----dektqsrpdsaash	3379
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----kedakvpsrpestashvsettdkkv-----nekepsrpesaash	3217
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----kedakvpsrpestashvsettdkkm-----dekepsrpesaash	3327
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	akdeksplhsrpesvadkspdaskeasrslsvaetasspieegprsiadlsplnlgtge-	4173
<i>Aedes aegypti</i> ; XP_021710788.1	gpsdksvpkd-----skpddkelslpesttse-----tvakpldassid	3418
<i>Culex quinquefasciatus</i> ; EDS38616.1	apsdkspakd-----lkvdekiasrpesaaes-----vvs---dktsev	3253
<i>Culex pipiens pallens</i> ; XP_039443854.1	apsdkspakd-----lkvdekiasrpesaaes-----vvs---nkasev	3363

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	---akgklptlss-----pidvaegdflevkae-----ssrpavlskpaefsq	4214
<i>Aedes aegypti</i> ; XP_021710788.1	kligegdfsrespascssdkv-epskepkestfvekdllarpdsscsyhgehipdekpfsr	3477
<i>Culex quinquefasciatus</i> ; EDS38616.1	kptadgdfsrespascssdkivapskepesgffekdlarrdsndsfhgepipdektfsr	3313
<i>Culex pipiens pallens</i> ; XP_039443854.1	kptadgdfsrespascssdkivapskepesgffekdlarrdsndsfhgepipdektfsr	3423
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	pdgtgtastpvdeaspvleeievveqhttsvgvatgataetdldltetksetvtkqset	4274
<i>Aedes aegypti</i> ; XP_021710788.1	pespds-----caddklnevetqpaekq-----	3500
<i>Culex quinquefasciatus</i> ; EDS38616.1	pespds-----caedkkeqivetkpetvtkveek	3342
<i>Culex pipiens pallens</i> ; XP_039443854.1	pespds-----caedkkelivetkpetvtkveek	3452

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	tlfetltskveskvevlessvkqveekvqtsvkqaettvtdsleqltkksseqlteiksv	4334
<i>Aedes aegypti</i> ; XP_021710788.1	vt-----gdda----vkqvi---dttk--dvkked-----mesp	3525
<i>Culex quinquefasciatus</i> ; EDS38616.1	it--aseqkvetkea-----iqevkkeqiteskqattseqk-----dvsv	3380
<i>Culex pipiens pallens</i> ; XP_039443854.1	it--aseqkvetkea-----iqevkkeqvteskqattseqk-----dvsv	3490

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	ldtnfeevakivadvakvlksdkditdi-----ipdfd-----erqle	4372
<i>Aedes aegypti</i> ; XP_021710788.1	evkefsrp-----dspascgdeteltsktpessipekhlaredsvqsyhgpipeekqfs	3580
<i>Culex quinquefasciatus</i> ; EDS38616.1	eekdfrsp-----dspascgdekeltsskapessvpekdlarpdsaaasyhgpipegekqfs	3435
<i>Culex pipiens pallens</i> ; XP_039443854.1	eekdfrsp-----dspascgdekeltsskapessvpekdlarpdsaaasyhgpipegekqfs	3545

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	eklkstadteee---sdkstrdeksl-----eiskveieseksspdq	4412
<i>Aedes aegypti</i> ; XP_021710788.1	rpds pasggedetpapvkv-----skessrpesaashisgkd	3617
<i>Culex quinquefasciatus</i> ; EDS38616.1	rpaspasctedepaeaekvsrpesavshvsekdsksqdeskdvkaesrpesvashvsekd	3495
<i>Culex pipiens pallens</i> ; XP_039443854.1	rpaspasctedepteaekvsrpesavshvsekdsqpdeskdvkaesrpesvashvsekd	3605
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	ksgpisieekdkieqsekaqlrqgiltssrpesvasq-----pesv	4453
<i>Aedes aegypti</i> ; XP_021710788.1	ks-pvgseakes-----l-----	3629
<i>Culex quinquefasciatus</i> ; EDS38616.1	skspapveakev-----keasrpesvshvsekdtkpqeeskdtkesrpesv	3542
<i>Culex pipiens pallens</i> ; XP_039443854.1	skspapveakev-----keasrpesvshvsekdtksqeeskdtkesrpesv	3652

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	pspsqsaashehkevelseshkaekssrpesvasqvsekdmkts-----rpass	4503
<i>Aedes aegypti</i> ; XP_021710788.1	--tl-----nekdt-----rptsaa	3643
<i>Culex quinquefasciatus</i> ; EDS38616.1	ashvs---ekdskspapveskevkdas-----rpesva	3572
<i>Culex pipiens pallens</i> ; XP_039443854.1	ashvs---ekdskspaavestvakeasrpesvashvsekdtksqeeskdtkttesrpesva	3709

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	sqfstkegdeettes----llhslttt--etvetk-----qmeekssfesvstsvtk	4549
<i>Aedes aegypti</i> ; XP_021710788.1	shasdksgatea-----kmes-----	3659
<i>Culex quinquefasciatus</i> ; EDS38616.1	shvsekdkssaqqddtkdtkaqsrpesaashvsekdkspadkpkseesrpesaishv--	3630
<i>Culex pipiens pallens</i> ; XP_039443854.1	shvsekdkssaqqddtkdtkaqsrpesaashvsekdkspadkpkseasrpesaashv--	3767

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	stvlssqstvqlreestsesslss-----slkvedssrreslssllaek---ggia-t-n	4598
<i>Aedes aegypti</i> ; XP_021710788.1	---rresatqeerpss--salsdhadnaqeekifmkesrskslsavmsstpqrigfegsa	3713
<i>Culex quinquefasciatus</i> ; EDS38616.1	----seksvdsqrres--aalsdhed--eaekvvmketrskslsavmatttqrsgfegsa	3682
<i>Culex pipiens pallens</i> ; XP_039443854.1	----seksvdsqrres--aalsdhed--eaekvvmketrskslsavmatttqrsgfegsa	3819

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	ts-lkedtsasasqleellvqseecsse---sivseiqtisiaqksnkeikda-----ret	4649
<i>Aedes aegypti</i> ; XP_021710788.1	lgvleesaatsrddlhilktpresitkieemaftekkqfttasktgmslfgpsqfppter	3773
<i>Culex quinquefasciatus</i> ; EDS38616.1	lgvleetmvtsrddlhvlktpresitkieplse-----kieskagmslfgaeqfpadgk	3736
<i>Culex pipiens pallens</i> ; XP_039443854.1	lgvleetmvtsrddlhvlktpresitkieplse-----kieskagmslfgaeqfpadgk	3873

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	kvtsqfttts---s-----atkddslketvaeflatekivsakeafsteatksadd	4698
<i>Aedes aegypti</i> ; XP_021710788.1	keaegfpiagaehespdqtdtiipgvdqllketassmkeiekmsss-----	3819
<i>Culex quinquefasciatus</i> ; EDS38616.1	ketngfpvvglehespdetdsiipgvdvllketvssmkeiekmsts-----	3782
<i>Culex pipiens pallens</i> ; XP_039443854.1	ketngfpvvglehespdetdsiipgvdvllketvssmkeiekmsts-----	3919
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	clkkttasavsstsasqralfvgtdesrresllsq-asesrlt--hsdpedeepaddvde	4755
<i>Aedes aegypti</i> ; XP_021710788.1	-----vi-----tmiqttekkdesikqesk-sstlafplldsgkstpmgsge--	3859
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----vi-----smiktsekkdetvkieeksastlsfpplldsgkstpmstd--	3823
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----vi-----smiktsekkdetvkieeksastlsfpplldsgkstpmstd--	3960

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	rssvkesrsksiatimmtsikykpsemepisklveeehehveelaqevtstskttllqs	4815
<i>Aedes aegypti</i> ; XP_021710788.1	-----kdksqt-----ssikstspdhkdslegss-----a-slntfiek	3892
<i>Culex quinquefasciatus</i> ; EDS38616.1	-----kdksqa-----ssiksvsphekdsldgss-----a-slntfiek	3856
<i>Culex pipiens pallens</i> ; XP_039443854.1	-----kdksqa-----ssiksvsphekdsldgss-----a-slntfiek	3993
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	seqssttsstsktgasrvesitltqmd--qqtsqsgdpadrktpptapvspgvkamss	4873
<i>Aedes aegypti</i> ; XP_021710788.1	dslse-stskqvtikmsaveeiadlksmttstkvectellggsktptapispnvakedc	3951
<i>Culex quinquefasciatus</i> ; EDS38616.1	dslse-sttkhvtikmstveeigct-tvttgskaegsellgaktptapispnvredf	3914
<i>Culex pipiens pallens</i> ; XP_039443854.1	dslse-sttkhvtikmstveeigct-tvttgskaegsellgaktptapispnvredf	4051

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	tg-----sagsvigagagavaaggkcessaasivssgpmsp--kdisgksspgal	4922
<i>Aedes aegypti</i> ; XP_021710788.1	tlgqhiestvttsisattgtss---sqgivkqk-k---edvsgistpkesvpsgksspglm	4004
<i>Culex quinquefasciatus</i> ; EDS38616.1	slghqlessststttitsssqqlvggskqk-k---edvsgistpkesvpsgksspglm	3970
<i>Culex pipiens pallens</i> ; XP_039443854.1	slghqlessststttitsssqqlvggikqk-k---edvsgistpkesvpsgksspglm	4107
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	tse-----sqsiptplgreshdtpeesspkptspfprvskdelkslem-----q	4966
<i>Aedes aegypti</i> ; XP_021710788.1	svhtgstdsasksinlghssgietsesspkptspfklldtl-ktdevktssgmstpdmt	4063
<i>Culex quinquefasciatus</i> ; EDS38616.1	svhtgstdsasksinlghssgietsesspkptspfkvvdtl-ktdevktssgmstpdmt	4029
<i>Culex pipiens pallens</i> ; XP_039443854.1	svhtgstdsasksinlghssgietsesspkptspfkvvdtl-ktdevktssgmstpdmt	4166

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	hhsqeqmlagaaaagaecgdipelhelrglecttalsgstdkiittttvtkvisad	5026
<i>Aedes aegypti</i> ; XP_021710788.1	rtstpdmvdsqie-----ripedt-----keevkqdvitttttttkryikd	4105
<i>Culex quinquefasciatus</i> ; EDS38616.1	rtstpdmvdsqie-----rvpedk-----agggesvtttttttkryivkd	4071
<i>Culex pipiens pallens</i> ; XP_039443854.1	rtstpdmvdsqie-----rvpedk-----agggesvtttttttkryivkd	4208

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	gkeivteqktv--tttd-----ssepdkv----vttt---	5055
<i>Aedes aegypti</i> ; XP_021710788.1	gekievgstvktevsgdskddtssagesmststtttttkvvkaiktpinltlatte	4165
<i>Culex quinquefasciatus</i> ; EDS38616.1	gekievgstvktevadttdkddas---esmstssvtittgkptkevvtgpgiltlsste	4128
<i>Culex pipiens pallens</i> ; XP_039443854.1	gekievgstvktevadttdkddas---esmstssvtittgkptkevvtgpgiltlsste	4265

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	-rtts--eserdqllp-----kevallrglyrastpgse---ddedlllgsprsaty	5102
<i>Aedes aegypti</i> ; XP_021710788.1	drsltedydekdvmsprsdissgqasrivagwhdedvpgspmsvtsqaplspstkytydy	4225
<i>Culex quinquefasciatus</i> ; EDS38616.1	drsfadfdkeamsprsdissgqasrivagwhdedvpgspmsvtsqaplspstkytydy	4188
<i>Culex pipiens pallens</i> ; XP_039443854.1	drsfadfdkeamsprsdissgqasrivagwhdedvpgspmsvtsqaplspstkytydy	4325
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	elqhsssgvskrsldadgdesqddippqygseehstarsillprtadpmatsfygalpd	5162
<i>Aedes aegypti</i> ; XP_021710788.1	dlqhsssgvskksdiei--ddsqdeippqygsdevksaitiasafkpdpmstsfyggqlpd	4283
<i>Culex quinquefasciatus</i> ; EDS38616.1	dlqhsssgvskksdiei--ddsqdeippqygsdevksaitiasaykpdpmstsfyggqlpd	4246
<i>Culex pipiens pallens</i> ; XP_039443854.1	dlqhsssgvskksdiei--ddsqdeippqygsdevksaitiasaykpdpmstsfyggqlpd	4383

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	sfdvvmkp----stepipiqga-----psgdsqssesvessqtwaghkfl	5204
<i>Aedes aegypti</i> ; XP_021710788.1	vsdtavttsvtstksvpipit--tgkaftktymeyassgdssvdsshik---sadrkyl4338	
<i>Culex quinquefasciatus</i> ; EDS38616.1	isdstp-vgitasksvpipisapgkaafaktymeyassgessvdsshqhhtissdrkyl	4305
<i>Culex pipiens pallens</i> ; XP_039443854.1	isdstp-vgttasksvpipisapgkaafaktymeyassgessvdsshqhhtissdrkyl	4442
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	dqadkdfqraleehvqargaevmssvtakysyspsk-----aeemeqivsgtaerq	5255
<i>Aedes aegypti</i> ; XP_021710788.1	deadldfekaftksdkv---dlmtq---smhfssekefmaattttssamttvadsskkel	4392
<i>Culex quinquefasciatus</i> ; EDS38616.1	deadmdfekt-fak---a---dlmtt---smhfssekefmaat-----tiadsskkel4348	
<i>Culex pipiens pallens</i> ; XP_039443854.1	deadmdfekt-fak---a---dlmtt---smhfssekefmaat-----tiadsskkel	4485

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	rfplsdvqrarvaesgfatvgsvasqqqqekggeveqavptttavtasttatasstgal	5315
<i>Aedes aegypti</i> ; XP_021710788.1	df-----tasglpttisasqaqtlttt-aqss----ttattsgtsqqsqsdk	4436
<i>Culex quinquefasciatus</i> ; EDS38616.1	df-----tasglpstattsttaqsttq-qsssssststvtvtsttssstsq	4397
<i>Culex pipiens pallens</i> ; XP_039443854.1	df-----tasglpstattsttaqsttq-qsssssststvt-----tstsq	4528
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	pkdrleewgkplglpspaplpveggadirttpkkerrlvatctrlnneknlrrespnk	5375
<i>Aedes aegypti</i> ; XP_021710788.1	dkdplaswgkplglpspaplnd---enmkttpkrerkmilsktklnneknlrkrsespik	4493
<i>Culex quinquefasciatus</i> ; EDS38616.1	pqdplaswgkplglpspaplnd---dn-kttpkerrtlisktklnneknlrkrsespik	4453
<i>Culex pipiens pallens</i> ; XP_039443854.1	pqdplaswgkplglpspaplnd---dn-kttpkerrtlisktklnneknlrkrsespik	4584

<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	agkk--papvyvdltyvphngnsyyahvdfkvraryyvfsgtepsrqvydalleakqt	5433
<i>Aedes aegypti</i> ; XP_021710788.1	sakr--papvyvdlsvphhgnsyyanveffkrvaryyvfsgtepsrevynalleakqt	4551
<i>Culex quinquefasciatus</i> ; EDS38616.1	gakktpapvyvdlsvphhgnsyyanveffkrvaryyvfsgtepsrevynalleakqt	4513
<i>Culex pipiens pallens</i> ; XP_039443854.1	gakktpapvyvdlsvphhgnsyyanveffkrvaryyvfsgtepsrevynalleakqt	4644
<i>Anopheles merus</i> ; XP_041782981.1	-----	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	-----	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	-----	2808
<i>Anopheles darlingi</i> ; ETN65512.1	-----	1055
<i>Aedes albopictus</i> ; XP_029723621.1	-----	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	wedkelevtiptydtdvlgYWvaeneellakhridlspasrctinlqdhetscsayrl	5493
<i>Aedes aegypti</i> ; XP_021710788.1	wedkelevtiptydtdvlgYWwsenedllakyhidlspaarctinlqdhetscsayrl	4611
<i>Culex quinquefasciatus</i> ; EDS38616.1	wedkdlevtiptydtdvlgYWwsenedllakyhidlspaarctinlqdhetscsayrl	4573
<i>Culex pipiens pallens</i> ; XP_039443854.1	wedkdlevtiptydtdvlgYWwsenedllakyhidlspaarctinlqdhetscsayrl	4704

<i>Anopheles merus</i> ; XP_041782981.1	--	2806
<i>Anopheles arabiensis</i> ; XP_040172246.1	--	2808
<i>Anopheles coluzzii</i> ; XP_040218532.1	--	2808
<i>Anopheles darlingi</i> ; ETN65512.1	--	1055
<i>Aedes albopictus</i> ; XP_029723621.1	--	1616
<i>Drosophila melanogaster</i> ; ABW09325.1	ef	5495
<i>Aedes aegypti</i> ; XP_021710788.1	ef	4613
<i>Culex quinquefasciatus</i> ; EDS38616.1	ef	4575
<i>Culex pipiens pallens</i> ; XP_039443854.1	ef	4706

Percent Identity Matrix for futsch	<i>Anopheles merus</i> ; XP_041782981.1	<i>Anopheles arabiensis</i> ; XP_040172246.1	<i>Anopheles coluzzii</i> ; XP_040218532.1	<i>Anopheles darlingi</i> ; ETN65512.1	<i>Aedes albopictus</i> ; XP_029723621.1	<i>Drosophila melanogaster</i> ; ABW09325.1	<i>Aedes aegypti</i> ; XP_021710788.1	<i>Culex quinquefasciatus</i> ; EDS38616.1	<i>Culex pipiens pallens</i> ; XP_039443854.1
<i>Anopheles merus</i> ; XP_041782981.1	100.00	95.04	95.18	16.82	17.21	19.97	19.93	21.07	21.14
<i>Anopheles arabiensis</i> ; XP_040172246.1	95.04	100.00	96.76	17.03	16.72	19.36	19.19	20.49	20.59
<i>Anopheles coluzzii</i> ; XP_040218532.1	95.18	96.76	100.00	16.77	16.56	19.11	19.25	20.21	20.32
<i>Anopheles darlingi</i> ; ETN65512.1	16.82	17.03	16.77	100.00	16.02	19.70	20.41	21.84	22.30
<i>Aedes albopictus</i> ; XP_029723621.1	17.21	16.72	16.56	16.02	100.00	20.15	19.78	19.60	19.48
<i>Drosophila melanogaster</i> ; ABW09325.1	19.97	19.36	19.11	19.70	20.15	100.00	39.18	40.49	41.10
<i>Aedes aegypti</i> ; XP_021710788.1	19.93	19.19	19.25	20.41	19.78	39.18	100.00	69.14	69.23
<i>Culex quinquefasciatus</i> ; EDS38616.1	21.07	20.49	20.21	21.84	19.60	40.49	69.14	100.00	98.50
<i>Culex pipiens pallens</i> ; XP_039443854.1	21.14	20.59	20.32	22.30	19.48	41.10	69.23	98.50	100.00

S1.4. Multiple sequence alignment for gephyrin (Gene ID: 10243)

<i>Homo sapiens</i> ; NP_001364448.1	mategmiltnhdhqirvgvltvsdscfrnlaedrsginlkdlvqdpsslpggtisaykivp	60
<i>Drosophila melanogaster</i> ; P39205.3	-----Mesitfgvltisdtcwqepekdtsgpilrqliget--fantqvignivp	47
<i>Culex quinquefasciatus</i> ; EDS42142.1	-----Mmkfsvitvsdscsngtatdtsgphlvslvkek--ldatdvnylvvp	45
<i>Culex pipiens pallens</i> ; XP_039440701.1	-----mqtndivtsdscsngtatdtsgphlvslvkek--ldatdvnylvvp	44
<i>Anopheles arabiensis</i> ; XP_040156974.1	-----mfsvitvsdscaagkatdtsgphlvlikqs--lktdtnvnyllip	43
<i>Anopheles darlingi</i> ; ETN60700.1	-----mfyvitidscsageakdtsgpllvgliket--lktesvnyllvp	43
	.:***.* * ** * *.: : ..*	
<i>Homo sapiens</i> ; NP_001364448.1	deieeiketlidwcdekelnlilttggtgfaprdvtpekfptpfpcglqkgatkeviere	120
<i>Drosophila melanogaster</i> ; P39205.3	dekdiqqelrkwidreelrvilttggtgfaprdvtpe-----atrqlleke	94
<i>Culex quinquefasciatus</i> ; EDS42142.1	deadviklliyqcdvkvravfttggtgfalrdvtpe-----atravltke	92
<i>Culex pipiens pallens</i> ; XP_039440701.1	deadviklliyqcdvkvravfttggtgfaprdvtpe-----atravltke	91
<i>Anopheles arabiensis</i> ; XP_040156974.1	deedlikqsllyacdvlkvravfttggtgfaprdvtpe-----atraiitke	90
<i>Anopheles darlingi</i> ; ETN60700.1	derdlieksllyacdvlkvravfttggtgfaprdvtpe-----atravitke	90
	** : *.. * * ***** ***** **.. :.*	
<i>Homo sapiens</i> ; NP_001364448.1	apgmalamlmgslnvtplgmrsrpvcgirkltiinlpgskkgsqecfqfilpalphaid	180
<i>Drosophila melanogaster</i> ; P39205.3	cpqlsmyitlesikqtqyaalsrglcgiagntliinlpgsekavkecfqtisallphavh	154
<i>Culex quinquefasciatus</i> ; EDS42142.1	apqltmamtltslektkfavlsvravcgvrektlivnfpgskkavdecfhsivnviphilq	152
<i>Culex pipiens pallens</i> ; XP_039440701.1	apqltmamtltslektkfavlsvravcgvrektlivnfpgskkavdecfhsivnviphilq	151
<i>Anopheles arabiensis</i> ; XP_040156974.1	apqltlamtlcslektkfavlsvravcgvrnktlvnfpgskkavgecfqsivdvlphlln	150
<i>Anopheles darlingi</i> ; ETN60700.1	apqlslamtlrlektkfavlsvravcgirdrtlivnlpgskkavqecyesivdvlphvln	150
	. * ... : . *.. * . *** .** . ***.***.* **.. * .*** ..	

<i>Homo sapiens</i> ; NP_001364448.1	llrd-aivkvkevhdeldlpspppplspppttsphkqtedkgvqceeeeeekkdsgvas	239
<i>Drosophila melanogaster</i> ; P39205.3	ligd-dvslvrkthaevqgsa-----	174
<i>Culex quinquefasciatus</i> ; EDS42142.1	lmad-eipkvkethrkiqsge-----	172
<i>Culex pipiens pallens</i> ; XP_039440701.1	lmsd-eipkvkethrkiqsge-----	171
<i>Anopheles arabiensis</i> ; XP_040156974.1	llnegeiervrethrvqatgdgvpvq-----	177
<i>Anopheles darlingi</i> ; ETN60700.1	llsdgeiesvrethrevqqg---ttnt-----	174

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<i>Homo sapiens</i> ; NP_001364448.1	tedsssshitaaiiakipdsiisrgvqlprdtaslstpsespraqatsrlstascpt299	
<i>Drosophila melanogaster</i> ; P39205.3	---qks-----hicph	182
<i>Culex quinquefasciatus</i> ; EDS42142.1	---ghv-----hvcph	180
<i>Culex pipiens pallens</i> ; XP_039440701.1	---ghv-----hvcph	179
<i>Anopheles arabiensis</i> ; XP_040156974.1	---evy-----hvcph	185
<i>Anopheles darlingi</i> ; ETN60700.1	---krq-----hvcph	182

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<i>Homo sapiens</i> ; NP_001364448.1	pkvqsrcsskenilrashesavditkvarrhmspfpltsmdkafitvlemtplgteiin	359
<i>Drosophila melanogaster</i> ; P39205.3	k-----tgtgtdsdrnspypmlpvqevlsiifntvqktan----	217
<i>Culex quinquefasciatus</i> ; EDS42142.1	a-----tgkggd-drnspypmlevdaleiimstiatqki----	214
<i>Culex pipiens pallens</i> ; XP_039440701.1	a-----tgkggd-drnspypmlevdaleiimstiatqki----	213
<i>Anopheles arabiensis</i> ; XP_040156974.1	a-----tgkggd-drnsfpmidvddalrkiltvpsvqt----	219
<i>Anopheles darlingi</i> ; ETN60700.1	a-----tgkgsdddrrnspypmisvdealqkilatlpisiet----	217

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<i>Homo sapiens</i> ; NP_001364448.1	yrdgmgrvlaqdv yakdnlppfpasvkdgyavraadpgdriigesqageqptqvm-p	418
<i>Drosophila melanogaster</i> ; P39205.3	-----lnkillemnappvippfraskdgyamkstgfsgrvlgciaagdspnslplae	272
<i>Culex quinquefasciatus</i> ; EDS42142.1	-----pr----kqisrvnippfraskdgyalkssgdkgvkrvgyvaagngiirdyfdi	265
<i>Culex pipiens pallens</i> ; XP_039440701.1	-----pr----kqisrvnippfraskdgyalkssgdkgvkrvgyvaagngiirdyfdi	264
<i>Anopheles arabiensis</i> ; XP_040156974.1	-----ar----kqlsrnippfraskdgyalksiggkgmkkvigiyisagdaivqtnfti	270
<i>Anopheles darlingi</i> ; ETN60700.1	-----tr----pqmsrvnippfraskdgyalksiggkgmkkvigiyiaagdaivrtntfi	268

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<i>Homo sapiens</i> ; NP_001364448.1	gqvmrvttgapipcgadavvqvvedteliresddgteevrllvqarpqgdirpighdik	478
<i>Drosophila melanogaster</i> ; P39205.3	decykintgaplpleadcvvqvvedtkllqldkngqes-lvdilvepqagldvrpvgydls	331
<i>Culex quinquefasciatus</i> ; EDS42142.1	dqcykintgapvpdqadaviqiedtklist-dndiek-iievsspspnldirsigsdlr	323
<i>Culex pipiens pallens</i> ; XP_039440701.1	dqcykintgapvpdqadaviqiedtklist-dndiek-iievsspspnldirsigsdlr	322
<i>Anopheles arabiensis</i> ; XP_040156974.1	decykintgapvpqhadaaiqvvedtklvsr-kndyes-iveilaepsasldirsigsdlr	328
<i>Anopheles darlingi</i> ; ETN60700.1	decykintgaplpehadaaiqviedtklir-endyer-mievltdpepsldvraigsdlr	326

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<i>Homo sapiens</i> ; NP_001364448.1	rgecvlakgthmgpseigllatvgvtevevnkfpvvavmstgnellnpedd-----ll	531
<i>Drosophila melanogaster</i> ; P39205.3	tndrifpaldpspvvksllasvgnrlil--skpkvaivstgselcspnq-----lt	382
<i>Culex quinquefasciatus</i> ; EDS42142.1	mgedvfehrypldaaqrllasigetinv--gqlriavistgdelvhpygdgaq--trti	379
<i>Culex pipiens pallens</i> ; XP_039440701.1	mgedvfehrypldaaqrllasigetinv--gqlriavistgdelvhpygdgaq--tgti	378
<i>Anopheles arabiensis</i> ; XP_040156974.1	mseevfqyrfpldacqrallaavgekasv--vklkvaistgdellhpydtsaaadassl	386
<i>Anopheles darlingi</i> ; ETN60700.1	maeevfryrfpldasqrmlasigekvsl--vklkvailstgdellhpydaipa--egsl	382

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<i>Homo sapiens</i> ; NP_001364448.1	pgkirdsnrstllatiqehgyptin----lgivgdnppdIlInalnegisradviitsggv	587
<i>Drosophila melanogaster</i> ; P39205.3	pgkifdsntmtellvyfgfncmh----tcvlssdsfqrtkesllfevvdvfcsggv	438
<i>Culex quinquefasciatus</i> ; EDS42142.1	egkifdsnttmlvqmlrqfgfteeqclvsqivvhddyqslrkqieiltgsvhailctggv	439
<i>Culex pipiens pallens</i> ; XP_039440701.1	egkifdsnttmlvqlrrqfgfteeqclvsqivvhddyqslrkqieiltgsvhailctggv	438
<i>Anopheles arabiensis</i> ; XP_040156974.1	egkifdsnttmlvalvrqcgftedqceiqrvvkddfeslkaeiesltgavhiiictggv	446
<i>Anopheles darlingi</i> ; ETN60700.1	egkiydsnttmlvalirqfgftedqceirqqvkvkddfeslenavasltgsmhviictggv	442
	*** ** . * : * : : * : : : : **	
<i>Homo sapiens</i> ; NP_001364448.1	smgekdylkqvldidlhaqihfgrvmkpglpttfatldidgvrkiifalpgnpvsavvt	647
<i>Drosophila melanogaster</i> ; P39205.3	smgdkdfvksvle-dlqfrihcgvrnikpgkpmtfasrkd----kyffglpgnpvsafvt	493
<i>Culex quinquefasciatus</i> ; EDS42142.1	smgdkdfvkpvk-dlgydlkgrvnmkpgkpftfaskdi----trffglpgnpvsafvt	494
<i>Culex pipiens pallens</i> ; XP_039440701.1	smgdkdfvkpvk-dlgydlkgrvnmkpgkpftfaskdi----trffglpgnpvsafvt	493
<i>Anopheles arabiensis</i> ; XP_040156974.1	smgdkdfvkpvk-alnyelifgrvnmkpgkpcayatskv----tkffglpgnpvsafvt	501
<i>Anopheles darlingi</i> ; ETN60700.1	smgdkdfvkpvk-hlgyklvgrvnmkpgkpctyasspt----tkffglpgnpvsafvt	497
	.. * * : ***.*** * .. : . * ***** **	
<i>Homo sapiens</i> ; NP_001364448.1	cnlfvvpalrkmgildpr-----ptiikarlscdvkldprpeyhrcltwhhqp	698
<i>Drosophila melanogaster</i> ; P39205.3	fhlfalpairfaag-----wdrckcsIsvlnvklIn-dfslsdrpefvrask--sg	544
<i>Culex quinquefasciatus</i> ; EDS42142.1	fhlfalpalrkylatlnqttsnlakchlpkitvklItesyeldprpeyarasifsk--gg	552
<i>Culex pipiens pallens</i> ; XP_039440701.1	fhlfalpalrkylatlnqttsnlakchlpkitvklItesyeldprpeyarasivsk--gg	551
<i>Anopheles arabiensis</i> ; XP_040156974.1	fhlfalpalrqylatlnetapntakaslpmitvelldakylvldprpeyarasivr--ng	559
<i>Anopheles darlingi</i> ; ETN60700.1	fhlfalpalrwylcainetkpgqiakcclpmidvelldsineldprpefaratirsr--kg	555
	. ** . ** . * : * ** *** . * : :	

<i>Homo sapiens</i> ; NP_001364448.1	lpwaqstgnqmssrlmsmrsangllmlppkteqyvelhkgevvdvmvigrl-----	749
<i>Drosophila melanogaster</i> ; P39205.3	elyasvngnqissrlqsivgadvinlparsdrplakageifpasvlrfdiskye	601
<i>Culex quinquefasciatus</i> ; EDS42142.1	elwaqitgqqissrlksiveadvllhlparspskttivrgesvtaltlrdfistye	609
<i>Culex pipiens pallens</i> ; XP_039440701.1	elwaqitgqqissrlksiveadvllhlprspkttivrgesvtaltlrdfisaye	608
<i>Anopheles arabiensis</i> ; XP_040156974.1	kllasitggqissrlkstieadvlllelpartetkpyitagtplkalvrsdfisye	616
<i>Anopheles darlingi</i> ; ETN60700.1	kllasvtgnqlssrlkstadalielpaktgertslkagtlvkayvirsdfvsyyd	612

 * . * *.****** * *.*.* ** .. *

Percent Identity Matrix for gephyrin	<i>Homo sapiens</i> ; NP_001364448.1	<i>Drosophila melanogaster</i> ; P39205.3	<i>Culex quinquefasciatus</i> ; EDS42142.1	<i>Culex pipiens pallens</i> ; XP_039440701.1	<i>Anopheles arabiensis</i> ; XP_040156974.1	<i>Anopheles darlingi</i> ; ETN60700.1
<i>Homo sapiens</i> ; NP_001364448.1	100.00	38.91	40.75	40.65	41.16	41.47
<i>Drosophila melanogaster</i> ; P39205.3	38.91	100.00	50.08	50.00	51.10	51.44
<i>Culex quinquefasciatus</i> ; EDS42142.1	40.75	50.08	100.00	98.03	69.19	65.84
<i>Culex pipiens pallens</i> ; XP_039440701.1	40.65	50.00	98.03	100.00	68.86	66.17
<i>Anopheles arabiensis</i> ; XP_040156974.1	41.16	51.10	69.19	68.86	100.00	76.10
<i>Anopheles darlingi</i> ; ETN60700.1	41.47	51.44	65.84	66.17	76.10	100.00

S1.5. Multiple sequence alignment for phosphosynapsin (Gene ID: 6853)

<i>Homo sapiens</i> ; NP_008881.2	-----mnylrrrlsdsnfmanlpngymtdl-----qrp-----	28
<i>Drosophila melanogaster</i> ; AAF54506.3	mnfssfkssftsnvnflkrfssgdlsseddvdpsnlppaarpiqdqptkppvaggppn	60
<i>Anopheles darlingi</i> ; ETN61740.1	-----mfr---trthenrrsgdlssecedvdpkdlppaarsqqpplqqqmpggpps	49
<i>Anopheles stephensi</i> ; XP_035891026.1	-----mpggppn	7
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----mpggppn	7
<i>Anopheles merus</i> ; XP_041764250.1	-----mpggppn	7
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----mpggppn	7
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----mpggppn	7
<i>Aedes aegypti</i> ; XP_021705226.1	-----mpggppn	7
<i>Aedes albopictus</i> ; XP_029728640.1	-----mpggppn	7
<i>Homo sapiens</i> ; NP_008881.2	qppppppgahspgatpgp-----gtataerssgvapaaspaap--spgssggg---	74
<i>Drosophila melanogaster</i> ; AAF54506.3	mppppapgqpag-----aapelslsfgagktataapapprgvsaptspa	105
<i>Anopheles darlingi</i> ; ETN61740.1	ippppapgt-gavspggpvppgsapptggpelslsfgkgp-----qrgtsapsspa	99
<i>Anopheles stephensi</i> ; XP_035891026.1	ippppapgtagvspggpvppgsapptggpelslsfgkgp-----aqrtsapsspa	59
<i>Anopheles arabiensis</i> ; XP_040154215.1	ippppapgtagvspggpvppgsapptggpelslsfgkgp-----aqrtsapsspa	59
<i>Anopheles merus</i> ; XP_041764250.1	ippppapgtagvspggpvppgsapptggpelslsfgkgp-----aqrtsapsspa	59
<i>Anopheles coluzzii</i> ; XP_040240634.1	ippppapgtagvspggpvppgsapptggpelslsfgkgp-----aqrtsapsspa	59
<i>Culex quinquefasciatus</i> ; XP_038122578.1	ippppapgtagsavspgpv-pgsapptggpelslsfgkgp-----qrgtsapsspa	57
<i>Aedes aegypti</i> ; XP_021705226.1	ippppapg---savspgpv-pgsapptggpelslsfgkgp-----qrgtsapsspa	54
<i>Aedes albopictus</i> ; XP_029728640.1	ippppapg---savspgpv-pgsapptggpelslsfgkgp-----qrgtsapsspa	54
**** * . . * . * *		

<i>Homo sapiens</i> ; NP_008881.2	gffsslsnavkqttaaaatfseqvgggsgg-----agrggaasrvllvidephtdwaky	129
<i>Drosophila melanogaster</i> ; AAF54506.3	ksresllqrvqsltgaardqgasiigaavqsatqrapafskdkyftllvddqntdwsy	165
<i>Anopheles darlingi</i> ; ETN61740.1	ksresllqrvqsltgaardqgasiigaavstas-rvqpfnrdkcftllvddqntdwsy	158
<i>Anopheles stephensi</i> ; XP_035891026.1	ksresllqrvqsltgaardqgasiigaavstas-rvqpfnrdkcftllvddqntdwsy	118
<i>Anopheles arabiensis</i> ; XP_040154215.1	ksresllqrvqsltgaardqgasiigaavstas-rvqpfnrdkcftllvddqntdwsy	118
<i>Anopheles merus</i> ; XP_041764250.1	ksresllqrvqsltgaardqgasiigaavstas-rvqpfnrdkcftllvddqntdwsy	118
<i>Anopheles coluzzii</i> ; XP_040240634.1	ksresllqrvqsltgaardqgasiigaavstas-rvqpfnrdkcftllvddqntdwsy	118
<i>Culex quinquefasciatus</i> ; XP_038122578.1	ksresllqrvqsltgaardqgasiigaavstaa-rvqpfnkdkcftllvddqntdwsy	116
<i>Aedes aegypti</i> ; XP_021705226.1	ksresllqrvqsltgaardqgasiigaavssaa-rvqpfnkdkcftllvddqntdwsy	113
<i>Aedes albopictus</i> ; XP_029728640.1	ksresllqrvqsltgaardqgasiigaavssaa-rvqpfnkdkcftllvddqntdwsy	113

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<i>Homo sapiens</i> ; NP_008881.2	fkqkkihgeidikveqaebsdlnlvahanggsfsvdmevlrngkvvrslkpdfvlirqha	189
<i>Drosophila melanogaster</i> ; AAF54506.3	frgrllhgdirdirveqaefrditvssadtgppvmtaayrsgtrvarsfrpdfvlirqpp	225
<i>Anopheles darlingi</i> ; ETN61740.1	frgkrlhsdydirveqaeffreimltasadsgpmvgfmr-ggskqakpfrpdfilvrqpp	217
<i>Anopheles stephensi</i> ; XP_035891026.1	frgkrlhsdydirveqaeffreimltasadsgpmvgcna-g-gskqakpfrpdfilvrqpp	176
<i>Anopheles arabiensis</i> ; XP_040154215.1	frgkrlhsdydirveqaeffreimltasadsgpmvgcna-g-gskqakpfrpdfilvrqpp	176
<i>Anopheles merus</i> ; XP_041764250.1	frgkrlhsdydirveqaeffreimltasadsgpmvgcna-g-gskqakpfrpdfilvrqpp	176
<i>Anopheles coluzzii</i> ; XP_040240634.1	frgkrlhsdydirveqaeffreimltasadsgpmvgcna-g-gskqakpfrpdfilvrqpp	176
<i>Culex quinquefasciatus</i> ; XP_038122578.1	frgkrlhgdirdirveqaeffreisltnadagplvsfmr-g-sskqpkpfrpdfilvrqap	174
<i>Aedes aegypti</i> ; XP_021705226.1	frgkrlhgdirdirveqaeffreisltnadagplvsfmr-g-sskqpkpfrpdfilvrqap	171
<i>Aedes albopictus</i> ; XP_029728640.1	frgkrlhgdirdirveqaeffreisltnadagplvsfmr-g-sskqpkpfrpdfilvrqap	171

*.***. . *.***** :. : * * :***.*

<i>Homo sapiens</i> ; NP_008881.2	fsmarngdyrslviglqyagipsvnslhsvynfcdkpwvfaqmvrhkklgteefplidq	249
<i>Drosophila melanogaster</i> ; AAF54506.3	r--dgssdyrstllgkyggvpsinslhslyqfqdkpwvfshllqlrrlgrdgfplieq	283
<i>Anopheles darlingi</i> ; ETN61740.1	r--dgsdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgrdvplveq	275
<i>Anopheles stephensi</i> ; XP_035891026.1	r--dgsdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgrdafplveq	234
<i>Anopheles arabiensis</i> ; XP_040154215.1	r--dgsdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgrdafplveq	234
<i>Anopheles merus</i> ; XP_041764250.1	r--dgsdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgrdafplveq	234
<i>Anopheles coluzzii</i> ; XP_040240634.1	r--dgsdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgrdafplveq	234
<i>Culex quinquefasciatus</i> ; XP_038122578.1	r--dgakdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgreafplveq	232
<i>Aedes aegypti</i> ; XP_021705226.1	r--dgakdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgkeafplveq	229
<i>Aedes albopictus</i> ; XP_029728640.1	r--dgakdyrstllgkyggvpsinslhslyqfqdkpwvfahllqlrrlgkegfplveq	229

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<i>Homo sapiens</i> ; NP_008881.2	tfypnhkemssttyp-----vvkmghahsgmgkvkvdnqhdfqdiasvva-----l	297
<i>Drosophila melanogaster</i> ; AAF54506.3	tffpnprdlfqtkfp-----svlkaghchggvatarlenqsalqdaaglvsgagn-d	335
<i>Anopheles darlingi</i> ; ETN61740.1	tffpnpkdmtasfytnrqpsstspvksqdcqm-----	308
<i>Anopheles stephensi</i> ; XP_035891026.1	tffpnpkdmftwtrfp-----cvlkaghchggkatakdnpqalqdaagllcgtglsd	287
<i>Anopheles arabiensis</i> ; XP_040154215.1	tffpnpkdmftwtrfp-----cvlkaghchggkatakdnpqalqdaagllcgtglsd	287
<i>Anopheles merus</i> ; XP_041764250.1	tffpnpkdmftwtrfp-----cvlkaghchggkatakdnpqalqdaagllcgtglsd	287
<i>Anopheles coluzzii</i> ; XP_040240634.1	tffpnpkdmftwtrfp-----cvlkaghchggkatakdnpqalqdaagllcgtglsd	287
<i>Culex quinquefasciatus</i> ; XP_038122578.1	tffpnpremlawqrfp-----cvlkaghchggkatakdspgalqdaagllcgtglse	285
<i>Aedes aegypti</i> ; XP_021705226.1	tffpnprdmLawqrfp-----cvlkaghcyggkatakdnpqalqdaagllcgtglsd	282
<i>Aedes albopictus</i> ; XP_029728640.1	tffpnprdmLawqrfp-----cvlkaghchggkatakdnpqalqdaagllcgtglsd	282

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<i>Homo sapiens</i> ; NP_008881.2	tktyataepfidakydvrqkigqnykaymrtsvsgnwktntgsamleqiamsdryklwv	357
<i>Drosophila melanogaster</i> ; AAF54506.3	shcyctiepyidakfsvhiqkiggnnykafmrksitgnwktnggsamleqitltekykswv	395
<i>Anopheles darlingi</i> ; ETN61740.1	-----308	
<i>Anopheles stephensi</i> ; XP_035891026.1	ngsysclepyidakfdvhiqkigstykafrmrksisgnwktnggsamleqipmtekyktwv	347
<i>Anopheles arabiensis</i> ; XP_040154215.1	ngsysclepyidakfdvhiqkigstykafrmrksisgnwktnggsamleqipmtekyktwv	347
<i>Anopheles merus</i> ; XP_041764250.1	ngsysclepyidakfdvhiqkigstykafrmrksisgnwktnggsamleqipmtekyktwv	347
<i>Anopheles coluzzii</i> ; XP_040240634.1	ngsysclepyidakfdvhiqkigstykafrmrksisgnwktnggsamleqipmtekyktwv	347
<i>Culex quinquefasciatus</i> ; XP_038122578.1	stsysclepyidakfdvhiqkiggnnykafrmrksisgnwktnggsamleqipmtekykswi	345
<i>Aedes aegypti</i> ; XP_021705226.1	stsysclepyvdakfdihqkigtnykafrmrksisgnwktnggsamleqipmtekykawi	342
<i>Aedes albopictus</i> ; XP_029728640.1	stsysclepyvdakfdihqkigtnykafrmrksisgnwktnggsamleqipmtekykawi	342

<i>Homo sapiens</i> ; NP_008881.2	dtcseifggldicavealhgdgrdhiievvgssmpligdhqdedkqlivelvvnkmaqa	417
<i>Drosophila melanogaster</i> ; AAF54506.3	deiselfggmevcglsvvvakdgreiisacdftaligdtqeedrrqiadlvvgrmqnv	455
<i>Anopheles darlingi</i> ; ETN61740.1	-----308	
<i>Anopheles stephensi</i> ; XP_035891026.1	devselfggmevcgvavivskegkefiisaadstfplmgdsqeedrrqiadlvvgrmqnv	407
<i>Anopheles arabiensis</i> ; XP_040154215.1	devselfggmevcgvavivskegkefiisaadstfplmgdtqeedrrqiadlvvgrmqnv	407
<i>Anopheles merus</i> ; XP_041764250.1	devselfggmevcgvavivskegkefiisaadstfplmgdtqeedrrqiadlvvgrmqnv	407
<i>Anopheles coluzzii</i> ; XP_040240634.1	devselfggmevcgvavivskegkefiisaadstfplmgdtqeedrrqiadlvvgrmqnv	407
<i>Culex quinquefasciatus</i> ; XP_038122578.1	devselfgsmevcgiaivivskegkefiisasdstfplmgdtqeedrrqiadlvvgrmqnv	405
<i>Aedes aegypti</i> ; XP_021705226.1	devselfggmevcgiaivivskegkefiisasdstfplmgdtqeedrrhiadlvvgrmqnv	402
<i>Aedes albopictus</i> ; XP_029728640.1	devselfggmevcgiaivivskegkefiisasdstfplmgdtqeedrrhiadlvvgrmqnv	402

<i>Homo sapiens</i> ; NP_008881.2	lprqrqrdsapgrg-shgqtspgalplgrqtsqqpagppaqrpppqgppqpqpgpqr	476
<i>Drosophila melanogaster</i> ; AAF54506.3	crpsmaq-tgpgklpsrsvssraesptdegvaptplpagprpapg-gpppipe--r	510
<i>Anopheles darlingi</i> ; ETN61740.1	-----308	
<i>Anopheles stephensi</i> ; XP_035891026.1	crpsmmt-ka----vsrssissrgtspted----ap-pvpigtrpvpgggpppipe--r	455
<i>Anopheles arabiensis</i> ; XP_040154215.1	crpsmmt-ka----vsrssissrgtspted----ap-pvpigtrpvpgggpppipe--r	455
<i>Anopheles merus</i> ; XP_041764250.1	crpsmmt-ka----vsrssissrgtspted----ap-pvpigtrpvpgggpppipe--r	455
<i>Anopheles coluzzii</i> ; XP_040240634.1	crpsmmt-ka----vsrssissrgtspted----ap-pvpigtrpvpgggpppipe--r	455
<i>Culex quinquefasciatus</i> ; XP_038122578.1	crpsmlt-ka----tsrtsissrggsptee----np-pvpigsrpapvgggpppipe--r	453
<i>Aedes aegypti</i> ; XP_021705226.1	crpsmmt-ka----tsrssissrggsptee----mp-pvpigtrpapvgggpppipe--r	450
<i>Aedes albopictus</i> ; XP_029728640.1	crpsmmt-ka----tsrtsissrggsptee----mp-pvpigtrpapvgggpppipe--r	450

<i>Homo sapiens</i> ; NP_008881.2	qgpplqqrpppqgqqlsglppagsplpqrpsptsapqqpasqaapptqgqgrq----	532
<i>Drosophila melanogaster</i> ; AAF54506.3	tspavgsi-----grlssrsise-----vpeepss-sgpstvggvrdsqt	551
<i>Anopheles darlingi</i> ; ETN61740.1	-----308	
<i>Anopheles stephensi</i> ; XP_035891026.1	ttpgvgsi-----grhgsfssqsg-----eppeqpse-raptlnsvgrrdsqa	497
<i>Anopheles arabiensis</i> ; XP_040154215.1	ttpgvgsi-----grhgsfssqsg-----eppeqpse-raptlnsvgrrdsqa	497
<i>Anopheles merus</i> ; XP_041764250.1	ttpgvgsi-----grhgsfssqsg-----eppeqpse-raptlnsvgrrdsqa	497
<i>Anopheles coluzzii</i> ; XP_040240634.1	ttpgvgsi-----grhgsfssqsg-----eppeqpse-raptlnsvgrrdsqa	497
<i>Culex quinquefasciatus</i> ; XP_038122578.1	ttpgvgsi-----grhgsissqsg-----eppeqpm-d-kaptlnsvgrrdsqa	495
<i>Aedes aegypti</i> ; XP_021705226.1	ttpgvgsi-----grhgsissqsg-----eipdqpte-kaptlnslgrrdsqa	492
<i>Aedes albopictus</i> ; XP_029728640.1	ttpgvgsi-----grhgsissqsg-----eipeqpse-kaptlnslgrrdsqa	492

<i>Homo sapiens</i> ; NP_008881.2	--srpvaggp-----gappaarpp-aspspqrqagppq-atrqt--svsgp-----	572
<i>Drosophila melanogaster</i> ; AAF54506.3	sqsstissvsrag-----qrppqtqnsvedaedtmknlrktfagifgdmxeia	601
<i>Anopheles darlingi</i> ; ETN61740.1	-----308	
<i>Anopheles stephensi</i> ; XP_035891026.1	sqsssvsgissasaarsaagkappan-atgapsvvedaedtmknlrktfagifgdm----	552
<i>Anopheles arabiensis</i> ; XP_040154215.1	sqsssvsgvssasaarsgvgkvpaaagpgggsvedaedtmknlrktfagifgdm----	553
<i>Anopheles merus</i> ; XP_041764250.1	sqsssvsgvssasaarsgvgkvpaaagpgggsvedaedtmknlrktfagifgdm----	553
<i>Anopheles coluzzii</i> ; XP_040240634.1	sqsssvsgvssasaarsgvgkvpaaagpgggsvedaedtmknlrktfagifgdm----	553
<i>Culex quinquefasciatus</i> ; XP_038122578.1	sqsssisgvssasaarsnaskvgp-gpgqgalgnvdeaedtmknlrktfagifgdm----	550
<i>Aedes aegypti</i> ; XP_021705226.1	sqsssvsgvssasaarsgvskvtt-lpgqgtv--adeaedtmknlrktfagifgdm----	545
<i>Aedes albopictus</i> ; XP_029728640.1	sqsssvsgvssasaarsgvskvtt-vpgqgtv--adeaedtmknlrktfagifgdm----	545

<i>Homo sapiens</i> ; NP_008881.2	-----appkasgappggqqrqgppqkppgpagptrq-----asqag-----	608
<i>Drosophila melanogaster</i> ; AAF54506.3	nkkrgrtasetssgsgpgs-----vpssagpgsgfsssfkgqfsfagkgegvist	652
<i>Anopheles darlingi</i> ; ETN61740.1	-----308	
<i>Anopheles stephensi</i> ; XP_035891026.1	-----552	
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----553	
<i>Anopheles merus</i> ; XP_041764250.1	-----553	
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----553	
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----550	
<i>Aedes aegypti</i> ; XP_021705226.1	-----545	
<i>Aedes albopictus</i> ; XP_029728640.1	-----545	

<i>Homo sapiens</i> ; NP_008881.2	---pvprtgppttqprpsgpgpagrpkpqlaqkpsqdvppp-ataaaggpphpqlnks-	663
<i>Drosophila melanogaster</i> ; AAF54506.3	qptqrpseppai----pttassavrpessvsvdsrntdtlteragagyqpvtnyeqqe	708
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553
<i>Anopheles merus</i> ; XP_041764250.1	-----	553
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545

<i>Homo sapiens</i> ; NP_008881.2	-----qsl-----tnafnlpe-pa--pprp--sls	683
<i>Drosophila melanogaster</i> ; AAF54506.3	rvnpfdkepsksgsaasihtsssssisssissrinrngnaiqsppppagppppppptnvt	768
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553
<i>Anopheles merus</i> ; XP_041764250.1	-----	553
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545

<i>Homo sapiens</i> ; NP_008881.2	qdevkaetirslrksfaslfsd-----	705
<i>Drosophila melanogaster</i> ; AAF54506.3	avgsnansssgyrnsfssslskdktsygnygsttsvetitrmtdntntnigatateageas	828
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553
<i>Anopheles merus</i> ; XP_041764250.1	-----	553
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545

<i>Homo sapiens</i> ; NP_008881.2	-----	705
<i>Drosophila melanogaster</i> ; AAF54506.3	gvtaitnisnsdgivaptgtittsvttndwrsaigmrsasvysapaavttvlpgdtsgy	888
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553
<i>Anopheles merus</i> ; XP_041764250.1	-----	553
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545

<i>Homo sapiens</i> ; NP_008881.2	-----	705	
<i>Drosophila melanogaster</i> ; AAF54506.3	dsnsiasqgeglnnpsdlpsytrpsysrsesnaskhsldlvifgdskttpasygngkytr		948
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308	
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552	
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553	
<i>Anopheles merus</i> ; XP_041764250.1	-----	553	
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553	
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550	
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545	
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545	

<i>Homo sapiens</i> ; NP_008881.2	-----	705	
<i>Drosophila melanogaster</i> ; AAF54506.3	aagsisdadmifggppsnyktdrfgasksmstsggvsgngsgsglggykiydsiqnaa		1008
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308	
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552	
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553	
<i>Anopheles merus</i> ; XP_041764250.1	-----	553	
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553	
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550	
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545	
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545	

<i>Homo sapiens</i> ; NP_008881.2	-----	705	
<i>Drosophila melanogaster</i> ; AAF54506.3	fsdfsdsgsmssigshtkrwsaskeeddldlk		1041
<i>Anopheles darlingi</i> ; ETN61740.1	-----	308	
<i>Anopheles stephensi</i> ; XP_035891026.1	-----	552	
<i>Anopheles arabiensis</i> ; XP_040154215.1	-----	553	
<i>Anopheles merus</i> ; XP_041764250.1	-----	553	
<i>Anopheles coluzzii</i> ; XP_040240634.1	-----	553	
<i>Culex quinquefasciatus</i> ; XP_038122578.1	-----	550	
<i>Aedes aegypti</i> ; XP_021705226.1	-----	545	
<i>Aedes albopictus</i> ; XP_029728640.1	-----	545	

Percent Identity Matrix for phosphosynapsin	<i>Homo sapiens</i> ; NP_008881.2	<i>Drosophila melanogaster</i> ; AAF54506.3	<i>Anopheles darlingi</i> ; ETN61740.1	<i>Anopheles stephensi</i> ; XP_035891026.1	<i>Anopheles arabiensis</i> ; XP_040154215.1	<i>Anopheles merus</i> ; XP_041764250.1	<i>Anopheles coluzzii</i> ; XP_040240634.1	<i>Culex quinquefasciatus</i> ; XP_038122578.1	<i>Aedes aegypti</i> ; XP_021705226.1	<i>Aedes albopictus</i> ; XP_029728640.1
<i>Homo sapiens</i> ; NP_008881.2	100.00	38.63	36.88	41.04	41.35	41.15	41.15	40.04	40.24	40.44
<i>Drosophila melanogaster</i> ; AAF54506.3	38.63	100.00	68.18	72.52	72.38	72.57	72.57	71.70	71.62	72.20
<i>Anopheles darlingi</i> ; ETN61740.1	36.88	68.18	100.00	92.25	91.47	91.86	92.25	85.21	84.31	84.31
<i>Anopheles stephensi</i> ; XP_035891026.1	41.04	72.52	92.25	100.00	97.46	97.64	97.83	88.52	87.87	88.05
<i>Anopheles arabiensis</i> ; XP_040154215.1	41.35	72.38	91.47	97.46	100.00	99.82	99.64	88.55	88.81	88.99
<i>Anopheles merus</i> ; XP_041764250.1	41.15	72.57	91.86	97.64	99.82	100.00	99.82	88.55	88.81	88.99
<i>Anopheles coluzzii</i> ; XP_040240634.1	41.15	72.57	92.25	97.83	99.64	99.82	100.00	88.73	88.99	89.17
<i>Culex quinquefasciatus</i> ; XP_038122578.1	40.04	71.70	85.21	88.52	88.55	88.55	88.73	100.00	94.31	94.68
<i>Aedes aegypti</i> ; XP_021705226.1	40.24	71.62	84.31	87.87	88.81	88.81	88.99	94.31	100.00	98.90
<i>Aedes albopictus</i> ; XP_029728640.1	40.44	72.20	84.31	88.05	88.99	88.99	89.17	94.68	98.90	100.00

S1.6 Multiple sequence alignment for choline acetyltransferase (Gene ID: 42249)

<i>Drosophila melanogaster</i> ; AAA28406.2	masneastsaaagsgpesaalfsklrfsigsgpnspqrsvnlrgflthrlsnitpsdtg	60
<i>Culex quinquefasciatus</i> ; EDS31208.1	-----	0
<i>Aedes aegypti</i> ; XP_021713002.1	-----	0

<i>Drosophila melanogaster</i> ; AAA28406.2	wkdsilsipkkwlstaesvdefgfpdtlpkvpvpaldetmadyiralepittpaqlertk	120
<i>Culex quinquefasciatus</i> ; EDS31208.1	-----mingft-lrmlpkvpvptldqmaeylrvlspivtaqqldhtr	42
<i>Aedes aegypti</i> ; XP_021713002.1	-----mlpkvpvptldqtmteyqralqpiltpqqlerar	34

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<i>Drosophila melanogaster</i> ; AAA28406.2	elirqfsapqgigarlhqylldkreaednwayyywlnemymdiriplpinsnpgmvfppr	180
<i>Culex quinquefasciatus</i> ; EDS31208.1	svikhftapngpgtalqqylldkrdaddnwayyywlnndmyldnplplpinsnpgmvmppr	102
<i>Aedes aegypti</i> ; XP_021713002.1	giirftapnqlgttlqqflldkreaednwayyywlnndmymdnplplpinsnpgmvlppr	94

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<i>Drosophila melanogaster</i> ; AAA28406.2	rftkvhdvahfaarlldgilshremldsgelperaasreknqplcmaqyyrllgscrrp	240
<i>Culex quinquefasciatus</i> ; EDS31208.1	kfttvndisrfgarlidhlmlhkemldggglvqeratsrekgqplcmaqyyrllgscrrp	162
<i>Aedes aegypti</i> ; XP_021713002.1	kfttvndlarfaarlvdhlvshkemldsgglageratsrekgqplcmaqyyrllgscrrp	154

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<i>Drosophila melanogaster</i> ; AAA28406.2	gvkqdsqflpsrserIndedrhwvicrnqmycvvlqasdrqklseasqilyvlsdap	300
<i>Culex quinquefasciatus</i> ; EDS31208.1	gdprdsqylpeqr----tdehvvccrnqmyclpvkagdrgrlnedeiasqillylndap	218
<i>Aedes aegypti</i> ; XP_021713002.1	genrdsqylpeqr----tdehvivccrnqmyclpvkagdrgrlnedeiasqvlhvndap	210

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<i>Drosophila melanogaster</i> ; AAA28406.2	clpakpvpglltaeprstwardremqlqederqnrlleietaqvvlcdeplagnfnar	360
<i>Culex quinquefasciatus</i> ; EDS31208.1	clarkpprigvlttaqrpqwardrqmlllleeqnarnielieqalvlcidepipltynar	278
<i>Aedes aegypti</i> ; XP_021713002.1	clsrrasriglltaeprqrwakdrklillleeqnarnielieqalvlcidepipltfnar	270
	** . :*.**.* **..*** ..** **..**** * *.**..**.	
<i>Drosophila melanogaster</i> ; AAA28406.2	gftgatptvhragdrdetnmahemihgggseyngsnrwndktmqliictdgtwglcyehs	420
<i>Culex quinquefasciatus</i> ; EDS31208.1	gfngspagahycgggrdesnmaqemihgggsefnsanrwndktmqliicndgtwglcyehs	338
<i>Aedes aegypti</i> ; XP_021713002.1	gfngspagahycgggrdesnmaqemihgggseyngsnrwndktmqliicndgtwglcyehs	330
	.*. * * *.***.*****.*.***** *****	
<i>Drosophila melanogaster</i> ; AAA28406.2	csegiavvvlllekiykkiehpded-nglpqhhlppperlewvgpqlqlrfaqasksvd	479
<i>Culex quinquefasciatus</i> ; EDS31208.1	psegiavvqllegilkkidempaeagndtaqnhlppperlewivrpaidlrreaarsid	398
<i>Aedes aegypti</i> ; XP_021713002.1	psegiavvqllegiykkidempakee-tgsqdhlppperlewivrpaidlriqeaaknvd	389
	***** * ***.* * . * ***** * ... * ..*	
<i>Drosophila melanogaster</i> ; AAA28406.2	kciddldfyvyryqsygkftikscqvspdvylqlalqlahyk-----	521
<i>Culex quinquefasciatus</i> ; EDS31208.1	rsiedldfyvyrykpfgknfikacqvspdvfiqlalqlayfkvpvetlphvesqpgle	458
<i>Aedes aegypti</i> ; XP_021713002.1	kniedldfyvyrypfgknfikacqvspdvfiqlalqlayfk-----	431
	. *.*****. **.***.*****.*****..*	
<i>Drosophila melanogaster</i> ; AAA28406.2	-----	521
<i>Culex quinquefasciatus</i> ; EDS31208.1	krrsggstmtscplpscpvpdsanrfqhnpitltpqrtftlnpcqhkhhkhapsircqn	518
<i>Aedes aegypti</i> ; XP_021713002.1	-----	431

<i>Drosophila melanogaster</i> ; AAA28406.2	-----lygrlvatyesastrflhgrvdciraastealewakamcqge	564
<i>Culex quinquefasciatus</i> ; EDS31208.1	qvhasvrnslfrvivtrlyghlvstyesastrrfmlgrvdcirsassealewakamcqge	578
<i>Aedes aegypti</i> ; XP_021713002.1	-----lygylvstyesastrrflgrvdcirsasmealewakamcqge	474
	*** **.******.* *****.* *****	
<i>Drosophila melanogaster</i> ; AAA28406.2	ganvplesdredeesrkvkfsiyskdhlrelfrcavarqtevmvknlgngidipllgl	624
<i>Culex quinquefasciatus</i> ; EDS31208.1	ganvtlesdkeddysae-aandakkrdnlrelfrcaaarqtevmvqnilghgidihllgl	637
<i>Aedes aegypti</i> ; XP_021713002.1	ganvtlesdkeedysse--andakkrdhrelfrcaaarqtevmvqnilghgidihllgl	532
	**** **.*.*.. .. .*.*****.*****.*.*.* *****	
<i>Drosophila melanogaster</i> ; AAA28406.2	reasiev-tgemhelfkdesyiisqcfllstsqvacstdsfmgypvtprgygcsynphp	683
<i>Culex quinquefasciatus</i> ; EDS31208.1	reaskelnqgtvhdlftddcykiancfllstsqvacstnsfmgypvtpghygasyngph	697
<i>Aedes aegypti</i> ; XP_021713002.1	reacre-qqgtlhelftdesykiancfllstsqvacstnsfmgypvtpghygasyngph	591
	*** * *.*.*.*.* *****.******.*.*.* *****	
<i>Drosophila melanogaster</i> ; AAA28406.2	eqivfcvsafyscedtsasryakslqdsldimrdllqn	721
<i>Culex quinquefasciatus</i> ; EDS31208.1	neiifcisaffssdktsasrfarslqdsldamrdlls-	734
<i>Aedes aegypti</i> ; XP_021713002.1	neiifcisaffssdktsasrfarslqdsldamrdlls-	628
	..*.*.*.*.* .*****.****** *****	

Percent Identity Matrix for choline acetyl-transferase	<i>Drosophila melanogaster</i> ; AAA28406.2	<i>Culex quinquefasciatus</i> ; EDS31208.1	<i>Aedes aegypti</i> ; XP_021713002.1
<i>Drosophila melanogaster</i> ; AAA28406.2	100.00	67.66	71.25
<i>Culex quinquefasciatus</i> ; EDS31208.1	67.66	100.00	87.26
<i>Aedes aegypti</i> ; XP_021713002.1	71.25	87.26	100.00

S1.7. Multiple sequence alignment for glutamine synthetase (Gene ID: 2752)

<i>Homo sapiens</i> ; NP_001028216.1	-----mttsasshlnkgikqvymslpqg	23
<i>Drosophila melanogaster</i> ; AHN59591.1	-----mhsamsariledspnarinktildrylsplq	32
<i>Aedes aegypti</i> ; AAV31915.1	-----msrtleespnahinktldkymslpmp	27
<i>Culex tarsalis</i> ; JAV34836.1	msfrvfgllirqelagvasgkastrmistssvrsarilkdspnaylnktlldryqklkyd	60
<i>Culex quinquefasciatus</i> ; EDS39993.1	-----	0
<i>Culex pipiens pallens</i> ; XP_039453062.1	-----	0
<i>Homo sapiens</i> ; NP_001028216.1	-ekvqamyiwidgtgeglrcktr-----tldsepkcveelpewnfdgsstlqsegsnsdm	77
<i>Drosophila melanogaster</i> ; AHN59591.1	enivqatyvwidgtgedlrckdr-----tldfipqspkelpwnydgsscyqaegsnsdt	87
<i>Aedes aegypti</i> ; AAV31915.1	egkiqatyiwidgtgenlrckdr-----tlefipekpsdlpiwnydgsscyqaeghnsdv	82
<i>Culex tarsalis</i> ; JAV34836.1	pkyvqatyiwidgtgenvrckdr-----tldfipekpsdlpiwnydgsscyqaeghnsdv	115
<i>Culex quinquefasciatus</i> ; EDS39993.1	-----mqncrelipntlsysfpaistdlpiwnydgsscyqaeghnsdv	44
<i>Culex pipiens pallens</i> ; XP_039453062.1	-----	0
<i>Homo sapiens</i> ; NP_001028216.1	ylvpaamfrdpfrkdpnklvlcevfkyrrpaetnlrhtckrimdmvsnqhpwfgmeqey	137
<i>Drosophila melanogaster</i> ; AHN59591.1	ylpvaiykdpfrggnnilvmcdtykfdgtptdtnkrktclevankcaaepwfgieqey	147
<i>Aedes aegypti</i> ; AAV31915.1	ylhpvaifkdpmrpgnnilvmcetyrfdgtptqsnkrtrcrevcdkvadqqpwfgieqey	142
<i>Culex tarsalis</i> ; JAV34836.1	ylhpvaiykdprggnnilvmcetyrfdgrptesnkrtrcrevcdqvaaekpwfgieqey	175
<i>Culex quinquefasciatus</i> ; EDS39993.1	ylhpvaiyrdprggnnilvmcetyrfdgrptesnkrtrcrevcdqvagekpwfgieqey	104
<i>Culex pipiens pallens</i> ; XP_039453062.1	-----mcetyrfdgrptesnkrtrcrevcdqvagekpwfgieqey	40
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<i>Homo sapiens</i> ; NP_001028216.1	tlmgtdghpfgwpsngfpgpggpyycvgadraygrdiveahyraclyagvkiagtnaev	197
<i>Drosophila melanogaster</i> ; AHN59591.1	tlldfdghplgwpkngfpgpggpyycvgankvyardivdahyraclyagikvsgtnaev	207
<i>Aedes aegypti</i> ; AAV31915.1	tlldidgrplgwpkngfpgpggpyycvgankvyardivdahyraclyagikicgtnaev	202
<i>Culex tarsalis</i> ; JAV34836.1	tlldidgrplgwpkngfpgpggpyycvgadkvyardivdahyraclyagvkicgtnaev	235
<i>Culex quinquefasciatus</i> ; EDS39993.1	tlldidgrplgwpkngfpgpggpyycvgadkvyardivdahyraclyagvkicgtnaev	164
<i>Culex pipiens pallens</i> ; XP_039453062.1	tlldidgrplgwpkngfpgpggpyycvgadkvyardivdahyraclyagvkicgtnaev	100

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<i>Homo sapiens</i> ; NP_001028216.1	mpaqwefqigpcegismgdhlwvarfilhrvcedfgviatfdpkpipgnwngagchtnfs	257
<i>Drosophila melanogaster</i> ; AHN59591.1	mpaqwefqvgpcegisigddlwmrflhriseefgivstldpkpmpgdwngagahtnvs	267
<i>Aedes aegypti</i> ; AAV31915.1	mpaqweyqvgpcegisigdelwvsrflhriaefgivatldpkpmpgdwngagahtnvs	262
<i>Culex tarsalis</i> ; JAV34836.1	mpaqweyqvgpcegismgddlwmsrflhriaefgivatldpkpmpgdwngagahtnvs	295
<i>Culex quinquefasciatus</i> ; EDS39993.1	mpaqweyqvgpcegismgddlwmsrflhriaefgivatldpkpmpgdwngagahtnvs	224
<i>Culex pipiens pallens</i> ; XP_039453062.1	mpaqweyqvgpcegismgddlwmsrflhriaefgivatldpkpmpgdwngagahtnvs	160

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<i>Homo sapiens</i> ; NP_001028216.1	tkamreenglkyieeiaeklskrhqyhiraydpkggldnarrltgfhetsnindsagva	317
<i>Drosophila melanogaster</i> ; AHN59591.1	tkamredggirdiekavaklskcherhiraydpkqgqdnarrltgkhetssindsagva	327
<i>Aedes aegypti</i> ; AAV31915.1	tktmreeggiveiesaiaklskcherhiraydpregkdnerrltgkhetssiydfnagva	322
<i>Culex tarsalis</i> ; JAV34836.1	tqamreegglaeiekaiaiklsqcherhiraydprggkdnerrltgkhetssihdfnagva	355
<i>Culex quinquefasciatus</i> ; EDS39993.1	tqamreegglaeiekaiaiklstcherhiraydprggkdnerrltgkhetssihdfnagva	284
<i>Culex pipiens pallens</i> ; XP_039453062.1	tqamrdegglaeiekaiaiklstcherhiraydprggkdnerrltgkhetssihdfnagva	220

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<i>Homo sapiens</i> ; NP_001028216.1	nrsasiriprtvgqekkgfyfedrrpsancdpfsvtealirtcllnetgdepfqykn	373
<i>Drosophila melanogaster</i> ; AHN59591.1	nrgcsiriprgvnddgkgfyfedrrpssncdpysvveailrticlde-----	373
<i>Aedes aegypti</i> ; AAV31915.1	nrgasvriprgvadegkgfyfedrrpssncdpysvveailrticlde-----	368
<i>Culex tarsalis</i> ; JAV34836.1	nrgasvriprgvadegkgfyfedrrpssncdpvvcailrticlne-----	401
<i>Culex quinquefasciatus</i> ; EDS39993.1	nrgasvriprgvadegkgfyfedrrpssncdpvvcailrticlde-----	330
<i>Culex pipiens pallens</i> ; XP_039453062.1	nrgasvriprgvadegkgfyfedrrpssncdpvvcailrticlde-----	266
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Percent Identity Matrix for glutamine synthetase	<i>Homo sapiens</i> ; NP_001028216.1	<i>Drosophila melanogaster</i> ; AHN59591.1	<i>Aedes aegypti</i> ; AAV31915.1	<i>Culex tarsalis</i> ; JAV34836.1	<i>Culex quinquefasciatus</i> ; EDS39993.1	<i>Culex pipiens pallens</i> ; XP_039453062.1
<i>Homo sapiens</i> ; NP_001028216.1	100.00	65.29	65.01	65.56	66.15	69.55
<i>Drosophila melanogaster</i> ; AHN59591.1	65.29	100.00	81.79	80.97	80.00	83.08
<i>Aedes aegypti</i> ; AAV31915.1	65.01	81.79	100.00	87.77	87.38	91.35
<i>Culex tarsalis</i> ; JAV34836.1	65.56	80.97	87.77	100.00	94.15	98.50
<i>Culex quinquefasciatus</i> ; EDS39993.1	66.15	80.00	87.38	94.15	100.00	99.62
<i>Culex pipiens pallens</i> ; XP_039453062.1	69.55	83.08	91.35	98.50	99.62	100.00

S1.8. Multiple sequence alignment for tyrosine-hydroxylase (Gene ID: 25085)

<i>Rattus norvegicus</i> ; XP_038957248.1	mptpsapsppk-----gfravseqdak-----qaeavtrricchpesprfigr	46
<i>Drosophila melanogaster</i> ; CAA53802.1	mmavaaaqknremfaikk-----ys--iengypsr	29
<i>Culex quinquefasciatus</i> ; XP_038115090.1	-----meaklnlfsvlktifkmhte-----pqqviqillnce--eengypsr	40
<i>Culex pipiens pallens</i> ; XP_039429428.1	-----meaklnlfsvlktifkmhte-----pqqviqillnce--eengypsr	40
<i>Aedes aegypti</i> ; EJY57397.1	-----	0
<i>Anopheles darlingi</i> ; ETN61516.1	mmavaaaqknremfaikk-sysieikrdnrcvlscvalsegdgvvlddec--tsngypsr	57
<i>Anopheles merus</i> ; XP_041769716.1	mmavaaaqknremfaikk-sysie-----ngypsr	29
<i>Anopheles sinensis</i> ; AMZ03511.1	mmavaaaqknremfaikk-sysie-----ngypsr	29
<i>Rattus norvegicus</i> ; XP_038957248.1	rqsliedarkereaaaa-----	63
<i>Drosophila melanogaster</i> ; CAA53802.1	rrslvddarfetivvkqtkqtvleearskan-----	60
<i>Culex quinquefasciatus</i> ; XP_038115090.1	rrslvddarfetivvkqtkqtvldearvkandsdslevq-----qvpdqhp---	86
<i>Culex pipiens pallens</i> ; XP_039429428.1	rrslvddarfetivvkqtkqtvldearvkandsdslevq-----qvpdqhp---	86
<i>Aedes aegypti</i> ; EJY57397.1	-----medavp-----	6
<i>Anopheles darlingi</i> ; ETN61516.1	rrslvddarfetivvkqtkqtvldearakandssvestvlqaeq-qqedklsqeiqqtv	116
<i>Anopheles merus</i> ; XP_041769716.1	rrslvddarfetivvkqtkqtvldearakandsslectilqaeqhqqedkipqevqqtv	89
<i>Anopheles sinensis</i> ; AMZ03511.1	rrslvddarfetivvkqtkqtvldearakan-----edklpqevqqtv	72

<i>Rattus norvegicus</i> ; XP_038957248.1	-----aaaaavassepgnpleavfee-----rdgn	89
<i>Drosophila melanogaster</i> ; CAA53802.1	-----dygltedeillanaasessdaaea	84
<i>Culex quinquefasciatus</i> ; XP_038115090.1	-----qavddlpypdpeeiv-sngaqqddetdaglteeevvlqnaasespeaeke	133
<i>Culex pipiens pallens</i> ; XP_039429428.1	-----qavddlpypdpeeiv-sngaqqddetdaglteeevvlqnaasespeaeke	133
<i>Aedes aegypti</i> ; EJY57397.1	-e-----qqqlqadev---pqmeenqatsqdeiddaglteeevvlqnaasespeaekq	54
<i>Anopheles darlingi</i> ; ETN61516.1	edndydeeeirmaavdsllphkpkqhepsaddeekkdaglteeevvlqnaasespeaeke	176
<i>Anopheles merus</i> ; XP_041769716.1	edqnddeeeirmvavdelpqkpqehvpsaddedketdaglteeevvlqnaasespeaeke	149
<i>Anopheles sinensis</i> ; AMZ03511.1	edqnddeeeirmvavddlpqkpqeehvpsandedketdaglteeevvlqnaasespeaeke	132
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<i>Rattus norvegicus</i> ; XP_038957248.1	egfqllerycgyredsipqledvsrflkertgqlrpvagllsardflaslafrvfqctq	322
<i>Drosophila melanogaster</i> ; CAA53802.1	aafqklqdeqifvetrlpqlqemsdflrkntgflrpaaglltardflaslafrifqstq	320
<i>Culex quinquefasciatus</i> ; XP_038115090.1	avfhkleekifvngripqlqemsdflrkntgflrpaaglltardflaslafrifqstq	370
<i>Culex pipiens pallens</i> ; XP_039429428.1	avfhkleekifvngripqlqemsdflrkntgflrpaaglltardflaslafrifqstq	370
<i>Aedes aegypti</i> ; EJJ57397.1	avfkledelikfvrkerlpqlqemsdflrkntgflrpaaglltardflaslafrifqstq	290
<i>Anopheles darlingi</i> ; ETN61516.1	avfrkleekifvrkerlpqlqemsdflrkntgflrpaaglltardflaslafrifqstq	412
<i>Anopheles merus</i> ; XP_041769716.1	avfrkleelikfvrkerlpqlqemsdflrkntgflrpaaglltardflaslafrifqstq	385
<i>Anopheles sinensis</i> ; AMZ03511.1	avfkleeekifvrnerlpqlqemsdflrntgflrpaaglltardflaslafrifqstq	368
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<i>Rattus norvegicus</i> ; XP_038957248.1	yirhasspmhspepdcchellghvpmldrtfaqsqdiglaslgasdeeieklstvywf	382
<i>Drosophila melanogaster</i> ; CAA53802.1	yvrhvnspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	380
<i>Culex quinquefasciatus</i> ; XP_038115090.1	yvrhinspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	430
<i>Culex pipiens pallens</i> ; XP_039429428.1	yvrhinspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	430
<i>Aedes aegypti</i> ; EJJ57397.1	yvrhinspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	350
<i>Anopheles darlingi</i> ; ETN61516.1	yvrhinspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	472
<i>Anopheles merus</i> ; XP_041769716.1	yvrhinspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	445
<i>Anopheles sinensis</i> ; AMZ03511.1	yvrhinspyhtpepdcihellghmplladpsfaqsqeiglaslgasdeeieklstvywf	428
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<i>Rattus norvegicus</i> ; XP_038957248.1	tvefglckqngelkaygagllssygellhslseepevrafdpdaavqpyqddqyqpyf	442
<i>Drosophila melanogaster</i> ; CAA53802.1	tvefglckehgqikaygagllssygellhaisdkcehrafepastavqpyqddqeyqpiyy	440
<i>Culex quinquefasciatus</i> ; XP_038115090.1	tvefglckennevkaaygagllsaygellhaisdkpehrafepastavqpyqddqeyqpiyy	490
<i>Culex pipiens pallens</i> ; XP_039429428.1	tvefglckennevkaaygagllsaygellhaisdkpehrafepastavqpyqddqeyqpiyy	490
<i>Aedes aegypti</i> ; EY57397.1	tvefglckennevkaaygagllsaygellhaisdkpehrafepastavqpyqddqeyqpiyy	410
<i>Anopheles darlingi</i> ; ETN61516.1	tvefglckekdevkaaygagllsaygellhaisdkpehrafepastavqpyqddqeyqpiyy	532
<i>Anopheles merus</i> ; XP_041769716.1	tvefglckekdevkaaygagllsaygellhaisdkpehrpfepastavqpyqddqeyqpiyy	505
<i>Anopheles sinensis</i> ; AMZ03511.1	tvefglckeknevkaaygagllsaygellhaisdkpehrpfepastavqpyqddqeyqpiyy	488

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<i>Rattus norvegicus</i> ; XP_038957248.1	vsesfndakdklrnyasriqrpsvkfdpytlaidvldsphtiqrslsgvqdelhtlaha	502
<i>Drosophila melanogaster</i> ; CAA53802.1	vaesfedakdkfrwvstmsrpfvfrfnphtervevldsvdkletlvhqmnteilhltna	500
<i>Culex quinquefasciatus</i> ; XP_038115090.1	vaesfedakekfrwvstmsrpfvfrfnphtervevldsvdkldtlvsqInteilhltna	550
<i>Culex pipiens pallens</i> ; XP_039429428.1	vaesfedakekfrwvstmsrpfvfrfnphtervevldsvdkldtlvsqInteilhltna	550
<i>Aedes aegypti</i> ; EY57397.1	vaesfedakekfrwvstmsrpfvfrfnphtervevldsvdkldtlvsqInteilhltna	470
<i>Anopheles darlingi</i> ; ETN61516.1	vaesfedakekfrwvstmsrpfvfrfnphtervevldsvdkletlvsqIntemilhltna	592
<i>Anopheles merus</i> ; XP_041769716.1	vaesfedakekfrwvstmsrpfvfrfnphtervevldsvdkletlvsqIntevlhltna	565
<i>Anopheles sinensis</i> ; AMZ03511.1	vaesfedakekfrwvstmsrpfvfrfnphtervevldsvdkldtlvsqIntellhltna	548

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<i>Rattus norvegicus</i> ; XP_038957248.1	lsais----	507
<i>Drosophila melanogaster</i> ; CAA53802.1	isklrrpf-	508
<i>Culex quinquefasciatus</i> ; XP_038115090.1	iaklrqpf-	559
<i>Culex pipiens pallens</i> ; XP_039429428.1	iaklrqpf-	559
<i>Aedes aegypti</i> ; EJJ57397.1	iaklrqpf-	479
<i>Anopheles darlingi</i> ; ETN61516.1	iaklrqpf-	601
<i>Anopheles merus</i> ; XP_041769716.1	iaklkqpf-	574
<i>Anopheles sinensis</i> ; AMZ03511.1	iekqrqpf-	557
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Percent Identity Matrix for tyrosine-hydroxylase	<i>Rattus norvegicus</i> ; XP_038957248.1	<i>Drosophila melanogaster</i> ; CAA53802.1	<i>Culex quinquefasciatus</i> ; XP_038115090.1	<i>Culex pipiens pallens</i> ; XP_039429428.1	<i>Aedes aegypti</i> ; EJJ57397.1	<i>Anopheles darlingi</i> ; ETN61516.1	<i>Anopheles merus</i> ; XP_041769716.1	<i>Anopheles sinensis</i> ; AMZ03511.1
<i>Rattus norvegicus</i> ; XP_038957248.1	100.00	49.57	48.68	48.68	51.59	47.70	48.54	48.75
<i>Drosophila melanogaster</i> ; CAA53802.1	49.57	100.00	80.88	80.88	82.37	82.84	83.50	83.10
<i>Culex quinquefasciatus</i> ; XP_038115090.1	48.68	80.88	100.00	100.00	91.95	84.56	87.06	89.31
<i>Culex pipiens pallens</i> ; XP_039429428.1	48.68	80.88	100.00	100.00	91.95	84.56	87.06	89.31
<i>Aedes aegypti</i> ; EJJ57397.1	51.59	82.37	91.95	91.95	100.00	90.19	90.40	91.21
<i>Anopheles darlingi</i> ; ETN61516.1	47.70	82.84	84.56	84.56	90.19	100.00	95.64	94.79
<i>Anopheles merus</i> ; XP_041769716.1	48.54	83.50	87.06	87.06	90.40	95.64	100.00	95.69
<i>Anopheles sinensis</i> ; AMZ03511.1	48.75	83.10	89.31	89.31	91.21	94.79	95.69	100.00