

Supplementary material to the manuscript “Prospects of and Barriers to the Development of Epitope-Based Vaccines against Human Metapneumovirus”

Table S1. Human metapneumovirus epitopes with confirmed natural processing, deposited in IEDB

IEDB ID	Epitope sequence	Protein (position)	Allele	Model	Assay				Ref.
					ELISPOT/ICS IFN γ release	51 chromium cytotoxicity	Pathogen burden after challenge	Degranulation	
547003	NGVRVLATA*	F (153-161)	HLA-A*02:01	PBMC		+			[1]
539306	GIQYISTAL	N (66-74)	HLA-A*02:01	Tg mice	+				[2]
539477	KKFEVNATV	M (86-94)	HLA-A*02:01	Tg mice	+				[2]
539532	KVYYRSLFI	N (217-225)	HLA-A*02:01	Tg mice	+				[2]
539533	KVYYRSLFIEYGKAL	N (217-231)	HLA-A*02:01	Tg mice	+				[2]
539776	PKKFEVNATVALDEY	M (85-99)	HLA-A*02:01	Tg mice	+				[2]
540147	YAAEIGIQYISTALG	N (61-75)	HLA-A*02:01	Tg mice	+				[2]
540151	YKHAILKESQYTIKR	N (13-27)	HLA-A*02:01	Tg mice	+				[2]
159213	YAAEIGIQY	N (61-69)	HLA-A*02:01	Tg mice	+				[2]
539268	FQANTPPAV*	M (39-47)	HLA-A*02:01	PBMC/Tg mice	+		+		[2]
159112	SLQQEITLL*	N (39-47)	HLA-A*02:01	PBMC/Tg mice	+				[2]
69387	VLATAVREL*	F (157-165)	HLA-A*02:01	PBMC	+	+			[3]
31915	KLILALLTFL	SH (35-44)	HLA-A*02:01	Tg mice	+	+			[4,5]
59182	SLILIGITTL	G (32-41)	HLA-A*02:01	PBMC/Tg mice	+	+			[3,5]
31756	KLAKLIIDL	M2-1 (157-165)	HLA-A*02:01	PBMC	+	+			[3]
25388	IAPYAGLIMI*	M (194-203)	HLA class I	PBMC	+	+			[3]
33979	KVEGEQHVIK*	F (429-438)	HLA class I	PBMC	+	+			[3]
54706	RLPREKLKK	M2-1 (149-157)	HLA-A*11	PBMC	+	+			[3]
28126	IPYTAAVQV*	M (12-20)	HLA-B*07	PBMC	+	+			[3]
32663	KPAVGVDYHIV	SH (152-161)	HLA-B*07	PBMC	+	+			[3]
158691	APYAGLIMI*	M (195-203)	HLA-B*07:02	Tg mice	+			+	[6,7]
159244	YPRMDIPKI	N (198-206)	HLA-B*07:02	Tg mice			+		[6]
60092	SPKAGLLSL*	N (307-315)	HLA-B*07	PBMC	+	+			[3]
			H2-Ld	BALB/c mice	+	+	+		[8]
68624	VGALIFTKL	N (164-172)	HLA-A*02:01	Tg mice	+	+			[5]
			H2-Kb	C57bl/6 mice	+	+			[4,5]
178408	SGVTNNGFI	F (528-536)	H2-Db	C57bl/6 mice	+			+	[6,7,9,10]
178390	LSYKHAIL	N (11-18)	H2-Kb	C57bl/6 mice	+			+	[6,7,10]
7407	CYLENIEII	M2-2 (56-64)	H2-Kd	BALB/c mice	+	+			[5,8]
5782	AYGAGQTML	N (251-259)	H2-Kd	BALB/c mice	+				[8]
6813	CPNFASVVL	N (318-326)	H2-Ld	BALB/c mice	+				[8]
7393	CYKGVSCSI	F (384-392)	H2-Kd	BALB/c mice	+				[8]
21782	GPSLIKTEL	F (63-71)	H2-Ld	BALB/c mice	+				[8]
23359	GYIDDNQSI	M2-1 (81-89)	H2-Kd	BALB/c mice	+	+			[8]
29615	IYLIINYTI	G (47-55)	H2-Kd	BALB/c mice	+				[8]
30879	KFVSSAKPV	M (128-136)	H2-Kd	BALB/c mice	+				[8]

38414	LPASLTIWF	M 928-36)	H2-Ld	BALB/c mice	+				[8]
45470	NPRQSRFVL	F (97-105)	H2-Ld	BALB/c mice	+				[8]
65510	TPASLINNL	M (139-147)	H2-Ld	BALB/c mice	+				[8]

* epitopes located within conserved protein region

Supplementary references:

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