

**Table S1.** *Phaseolus* bean genotypes used for heat tolerance under moderate (field) and extreme (greenhouse) heat stress conditions.

Genotype No	Species	Accession No.	Collection Place	Origin
G1	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G2	<i>Phaseolus vulgaris</i>	APN 14013	Rize	Turkiye
G3	<i>Phaseolus vulgaris</i>	APN 14014	Amasya	Turkiye
G4	<i>Phaseolus vulgaris</i>	APN 14015	Kütahya	Turkiye
G5	<i>Phaseolus vulgaris</i>	APN 14016	Hatay	Turkiye
G6	<i>Phaseolus vulgaris</i>	APN 14017	İstanbul	Turkiye
G7	<i>Phaseolus vulgaris</i>	APN 14023	Kars	Turkiye
G8	<i>Phaseolus vulgaris</i>	APN 14026	Gömbe/ Antalya	Turkiye
G9	<i>Phaseolus vulgaris</i>	APN 14029	Burdur	Turkiye
G10	<i>Phaseolus vulgaris</i>	APN 14031	Çumra/ Konya	Turkiye
G11	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G12	<i>Phaseolus vulgaris</i>	APN 14032	Isparta	Turkiye
G13	<i>Phaseolus vulgaris</i>	APN 14036	Kayseri	Turkiye
G14	<i>Phaseolus vulgaris</i>	APN 14040	Çanakkale	Turkiye
G15	<i>Phaseolus vulgaris</i>	APN 14041	Tekirdağ	Turkiye
G16	<i>Phaseolus vulgaris</i>	APN 14042	Kırlareli	Turkiye
G17	<i>Phaseolus vulgaris</i>	APN 14043	Kastamonu	Turkiye
G18	<i>Phaseolus vulgaris</i>	APN 14044	Kırlareli	Turkiye
G19	<i>Phaseolus vulgaris</i>	APN 14049	Niğde	Turkiye
G20	<i>Phaseolus vulgaris</i>	APN 14051	Adana	Turkiye
G21	<i>Phaseolus vulgaris</i>	APN 14056	Erzurum	Turkiye
G22	<i>Phaseolus vulgaris</i>	APN 14067	Kütahya	Turkiye
G23	<i>Phaseolus vulgaris</i>	APN 14069	Çorum	Turkiye
G24	<i>Phaseolus vulgaris</i>	APN 14070	Amasya	Turkiye
G25	<i>Phaseolus vulgaris</i>	APN 14071	Na	Turkiye
G26	<i>Phaseolus vulgaris</i>	APN 14072	Na	Turkiye
G27	<i>Phaseolus vulgaris</i>	APN 14073	Na	Turkiye
G28	<i>Phaseolus vulgaris</i>	APN 14074	Na	Turkiye
G29	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G30	<i>Phaseolus vulgaris</i>	APN 14077	Na	Turkiye
G31	<i>Phaseolus vulgaris</i>	APN 14078	Na	Turkiye
G32	<i>Phaseolus vulgaris</i>	APN 14079	Na	Turkiye
G33	<i>Phaseolus vulgaris</i>	APN 14080	Na	Turkiye
G34	<i>Phaseolus vulgaris</i>	APN 14082	Na	Turkiye
G35	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G36	<i>Phaseolus vulgaris</i>	APN 14083	Na	Turkiye
G37	<i>Phaseolus vulgaris</i>	APN 14084	Na	Turkiye
G38	<i>Phaseolus vulgaris</i>	APN 14085	Na	Turkiye
G39	<i>Phaseolus vulgaris</i>	APN 14086	Na	Turkiye
G40	<i>Phaseolus vulgaris</i>	APN 14087	Na	Turkiye
G41	<i>Phaseolus vulgaris</i>	APN 14088	Na	Turkiye

G42	<i>Phaseolus vulgaris</i>	APN 14090	Na	Turkiye
G43	<i>Phaseolus vulgaris</i>	APN 14091	Na	Turkiye
G44	<i>Phaseolus vulgaris</i>	APN 14092	Na	Turkiye
G45	<i>Phaseolus vulgaris</i>	APN 14102	Na	Turkiye
G46	<i>Phaseolus vulgaris</i>	APN 14104	Na	Turkiye
G47	<i>Phaseolus vulgaris</i>	APN 14105	Na	Turkiye
G48	<i>Phaseolus vulgaris</i>	APN 14106	Na	Turkiye
G49	<i>Phaseolus vulgaris</i>	APN 14107	Na	Turkiye
G50	<i>Phaseolus vulgaris</i>	APN 14108	Na	Turkiye
G51	<i>Phaseolus vulgaris</i>	APN 14109	Na	Turkiye
G52	<i>Phaseolus vulgaris</i>	APN 14111	Na	Turkiye
G53	<i>Phaseolus vulgaris</i>	APN 14112	Na	Turkiye
G54	<i>Phaseolus vulgaris</i>	APN 14116	Na	Turkiye
G55	<i>Phaseolus vulgaris</i>	APN 14118	Na	Turkiye
G56	<i>Phaseolus vulgaris</i>	APN 14120	Na	Turkiye
G57	<i>Phaseolus vulgaris</i>	APN 14134	Bekişli/ Eşme/ Uşak	Turkiye
G58	<i>Phaseolus vulgaris</i>	APN 14138	Antalya Pazar	Turkiye
G59	<i>Phaseolus vulgaris</i>	APN 14140	Na	Turkiye
G60	<i>Phaseolus vulgaris</i>	APN 14141	Na	Turkiye
G61	<i>Phaseolus vulgaris</i>	Na	Yumutalik/Adana	Turkiye
G62	<i>Phaseolus vulgaris</i>	Na	Akin	Turkiye
G63	<i>Phaseolus vulgaris</i>	Na	Antalya Pazar	Turkiye
G64	<i>Phaseolus vulgaris</i>	Na	Aras 98	Turkiye
G65	<i>Phaseolus vulgaris</i>	Na	Bucak	Turkiye
G66	<i>Phaseolus vulgaris</i>	Na	Bulduk	Turkiye
G67	<i>Phaseolus vulgaris</i>	Na	Dimyat Gold	Turkiye
G68	<i>Phaseolus vulgaris</i>	Na	Dimyat Kara Fasulye	Turkiye
G69	<i>Phaseolus vulgaris</i>	Na	Gombe	Turkiye
G70	<i>Phaseolus vulgaris</i>	Na	Kacang Merah	Turkiye
G71	<i>Phaseolus vulgaris</i>	Na	Na	Cameroon
G72	<i>Phaseolus vulgaris</i>	Na	Na	Cameroon
G73	<i>Phaseolus vulgaris</i>	Na	Na	Cameroon
G74	<i>Phaseolus vulgaris</i>	Na	Na	Cameroon
G75	<i>Phaseolus vulgaris</i>	Na	Karasehir 90	Turkiye
G76	<i>Phaseolus vulgaris</i>	Na	Kayseri Develi	Turkiye
G77	<i>Phaseolus vulgaris</i>	Na	Kayseri Pinarbarbaşı	Turkiye
G78	<i>Phaseolus vulgaris</i>	Na	Kayseri Yesil Kenk	Turkiye
G79	<i>Phaseolus vulgaris</i>	Na	Kayseri Yesilhisar	Turkiye
G80	<i>Phaseolus vulgaris</i>	Na	Local 10	Turkiye
G81	<i>Phaseolus vulgaris</i>	Na	Local 14	Turkiye
G82	<i>Phaseolus vulgaris</i>	Na	Local 5	Turkiye
G83	<i>Phaseolus vulgaris</i>	Na	Local 6	Turkiye
G84	<i>Phaseolus vulgaris</i>	Na	Local 7	Turkiye
G85	<i>Phaseolus vulgaris</i>	Na	Local 8	Turkiye
G86	<i>Phaseolus vulgaris</i>	Na	Local 9	Turkiye
G87	<i>Phaseolus vulgaris</i>	Na	Na	Malesia

G88	<i>Phaseolus vulgaris</i>	Na	Na	Malesia
G89	<i>Phaseolus vulgaris</i>	Na	Na	Malesia
G90	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G91	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G92	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G93	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G94	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G95	<i>Phaseolus vulgaris</i>	Na	Önceler 98	Turkiye
G96	<i>Phaseolus vulgaris</i>	Na	Ramuan Kering	Turkiye
G97	<i>Phaseolus vulgaris</i>	Na	Terzi Baba	Turkiye
G98	<i>Phaseolus vulgaris</i>	Na	Trabzon 2	Turkiye
G99	<i>Phaseolus vulgaris</i>	Na	Trabzon 4	Turkiye
G100	<i>Phaseolus vulgaris</i>	Na	Welda Enni Uzuu	Turkiye
G101	<i>Phaseolus vulgaris</i>	Na	Y. Turkay	Turkiye
G102	<i>Phaseolus vulgaris</i>	Na	Yar Ala Barbanya	Turkiye
G103	<i>Phaseolus vulgaris</i>	Na	Yar Dermason	Turkiye
G104	<i>Phaseolus vulgaris</i>	Na	Yarutiye	Turkiye
G105	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G106	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G107	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G108	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G109	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G110	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G111	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G112	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G113	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G114	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G115	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G116	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G117	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G118	<i>Phaseolus vulgaris</i>	Na	Antalya	Turkiye
G119	<i>Phaseolus vulgaris</i>	Na	Na	France
G120	<i>Phaseolus vulgaris</i>	Na	Na	Franca
G121	<i>Phaseolus vulgaris</i>	Na	Na	France
G122	<i>Phaseolus vulgaris</i>	Na	Na	France
G123	<i>Phaseolus vulgaris</i>	Na	Na	France
G124	<i>Phaseolus vulgaris</i>	Na	Na	France
G125	<i>Phaseolus vulgaris</i>	Na	Na	France
G126	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G127	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G128	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G129	<i>Phaseolus vulgaris</i>	Na	Na	Italy
G130	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G131	<i>Phaseolus vulgaris</i>	Na	Kursunlu/Antalya	Turkiye
G132	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G133	<i>Phaseolus vulgaris</i>	Na	Antalya	Turkiye

G134	<i>Phaseolus vulgaris</i>	Na	Rize	Turkiye
G135	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G136	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G137	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G138	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G139	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G140	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G141	<i>Phaseolus vulgaris</i>	Na	Karacaşehir	Turkiye
G142	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G143	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G144	<i>Phaseolus vulgaris</i>	Na	Konyaaltı/Antalya	Turkiye
G145	<i>Phaseolus vulgaris</i>	Na	Konyaaltı/Antalya	Turkiye
G146	<i>Phaseolus vulgaris</i>	Na	Seydikemer/Muğla	Turkiye
G147	<i>Phaseolus vulgaris</i>	Na	Na	Georgia
G148	<i>Phaseolus vulgaris</i>	Na	Nunhems BV	Turkiye
G149	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G150	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G151	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G152	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G153	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G154	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G155	<i>Phaseolus vulgaris</i>	Na	Alanya/Antalya	Turkiye
G156	<i>Phaseolus vulgaris</i>	Na	Dalaman/Muğla	Turkiye
G157	<i>Phaseolus vulgaris</i>	Na	Oturak boysur	Turkiye
G158	<i>Phaseolus vulgaris</i>	Na	Dalaman/Muğla	Turkiye
G159	<i>Phaseolus vulgaris</i>	APN 14003	Na	Turkiye
G160	<i>Phaseolus vulgaris</i>	APN 14005	Na	Turkiye
G161	<i>Phaseolus vulgaris</i>	APN 14006	Na	Turkiye
G162	<i>Phaseolus vulgaris</i>	APN 14007	Na	Turkiye
G163	<i>Phaseolus vulgaris</i>	APN 14008	Na	Turkiye
G164	<i>Phaseolus vulgaris</i>	APN 14018	Na	Turkiye
G165	<i>Phaseolus vulgaris</i>	Na	Antalya	Turkiye
G166	<i>Phaseolus vulgaris</i>	Na	Antalya	Turkiye
G167	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G168	<i>Phaseolus vulgaris</i>	Na	Samsun	Turkiye
G169	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G170	<i>Phaseolus vulgaris</i>	APN 14011	Na	Turkiye
G171	<i>Phaseolus vulgaris</i>	Pronkboon	Groentezaden	The Netherlands
G172	<i>Phaseolus vulgaris</i>	Na	Na	Turkiye
G173	<i>Phaseolus vulgaris</i>	Dwarf bean	Na	Turkiye
G174	<i>Phaseolus vulgaris</i>	Polka	Na	Turkiye
G175	<i>Phaseolus vulgaris</i>	Stamslaboon	Groentezaden	The Netherlands
G176	<i>Phaseolus Hybr.</i>	PI 413672	Na	Colombia
G177	<i>Phaseolus coccineus</i>	PI 535284	Na	Guatemala
G178	<i>Phaseolus coccineus</i>	PI 311211	Na	Guatemala
G179	<i>Phaseolus coccineus</i>	PI 257222	Na	Colombia

G180	<i>Phaseolus coccineus</i>	PI 317580	Na	Guatemala
G181	<i>Phaseolus coccineus</i>	PI 325594	Na	Mexico
G182	<i>Phaseolus acutifolius</i>	PI 319447	Na	Mexico
G183	<i>Phaseolus acutifolius</i>	PI 239056	Na	Morocco
G184	<i>Phaseolus acutifolius</i>	PI 477033	Na	United State
G185	<i>Phaseolus acutifolius</i>	PI 309881	Na	Costa Rica
G186	<i>Phaseolus acutifolius</i>	PI 535202	Na	United States
G187	<i>Phaseolus acutifolius</i>	PI 535236	Na	United States
G188	<i>Phaseolus acutifolius</i>	PI 307802	Na	El Salvador
G189	<i>Phaseolus acutifolius</i>	PI 312198	Na	Mexico
G190	<i>Phaseolus lunatus</i>	PI 299389	Na	Brazil
G191	<i>Phaseolus lunatus</i>	PI 256423	Na	El Salvador
G192	<i>Phaseolus lunatus</i>	PI 195341	Na	Guatemala
G193	<i>Phaseolus lunatus</i>	PI 256820	Na	Ecuador
G194	<i>Phaseolus lunatus</i>	PI 257409	Na	Costa Rica
G195	<i>Phaseolus dumosus</i>	PI 311196	Na	Guatemala
G196	<i>Phaseolus dumosus</i>	PI 201323	Na	Mexico

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APN: Akdeniz University collection number; PI: Plant Introduction number in USDA GRIN;  
Na: Information not available.