

Binding affinities of 438 HLA Class I and II proteins to the complete proteomes of seven (potentially) pandemic viruses and distributions of strongest and weakest HLA peptide binders in human populations worldwide

Supplementary material 4

Extended results for the binding predictions for A/H1N1

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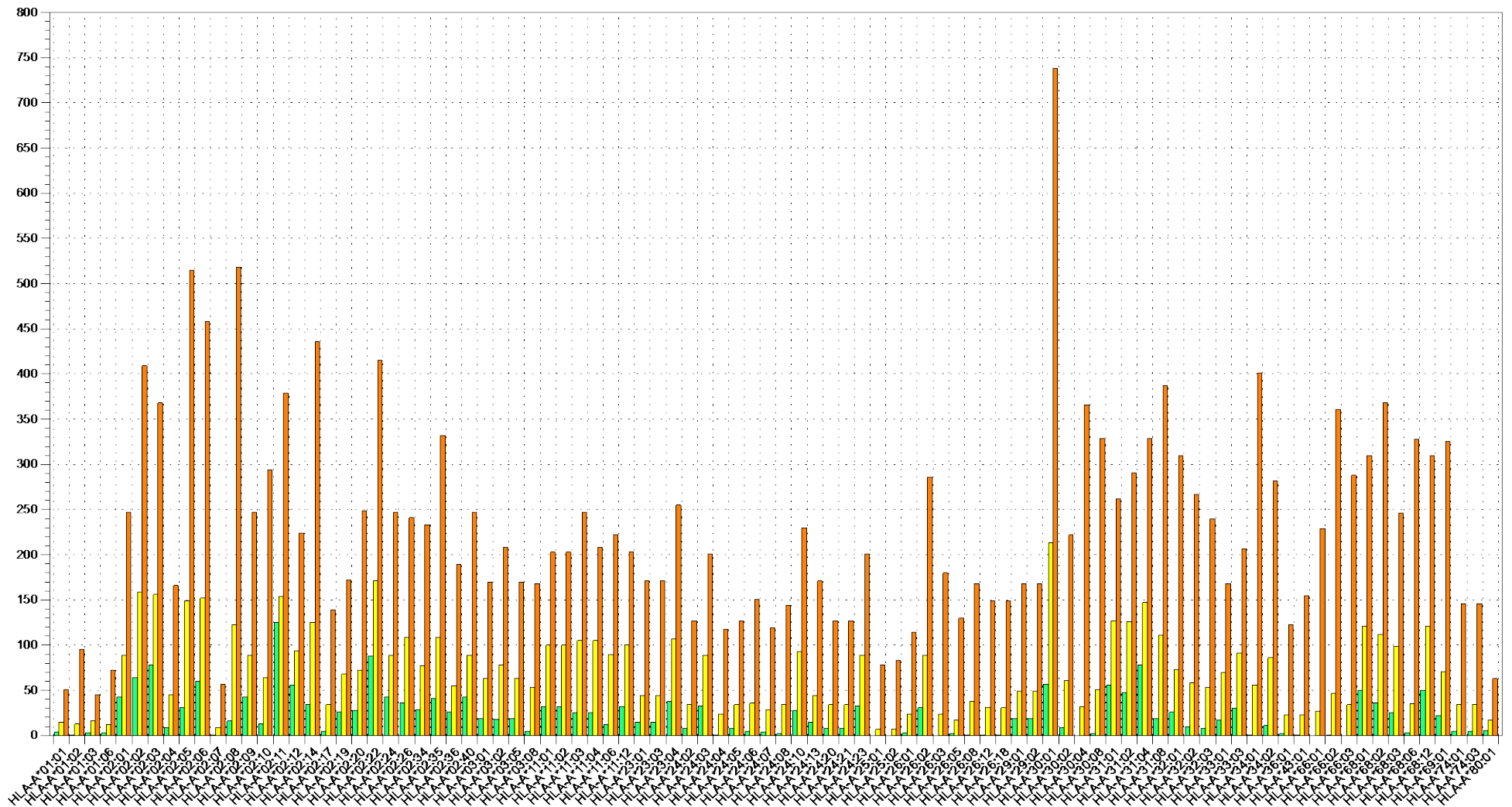
Total number of peptides with strong, regular and weak binding predictions for *HLA-A*

	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-A*01:01	4	15	51	4401
HLA-A*01:02	1	13	95	4362
HLA-A*01:03	3	16	45	4407
HLA-A*01:06	3	12	72	4384
HLA-A*02:01	43	89	247	4092
HLA-A*02:02	64	159	409	3839
HLA-A*02:03	78	156	368	3869
HLA-A*02:04	9	45	166	4251
HLA-A*02:05	31	149	515	3776
HLA-A*02:06	60	152	458	3801
HLA-A*02:07	1	9	57	4404
HLA-A*02:08	16	123	518	3814
HLA-A*02:09	43	89	247	4092
HLA-A*02:10	13	64	294	4100
HLA-A*02:11	125	154	379	3813
HLA-A*02:12	56	94	224	4097
HLA-A*02:14	34	125	436	3876
HLA-A*02:17	5	34	139	4293
HLA-A*02:19	26	68	172	4205
HLA-A*02:20	28	72	249	4122
HLA-A*02:22	88	171	415	3797
HLA-A*02:24	43	89	247	4092
HLA-A*02:26	36	109	241	4085
HLA-A*02:34	29	77	233	4132
HLA-A*02:35	41	109	332	3989
HLA-A*02:36	26	55	189	4201
HLA-A*02:40	43	89	247	4092
HLA-A*03:01	19	63	170	4219
HLA-A*03:02	18	78	208	4167
HLA-A*03:05	19	63	170	4219
HLA-A*03:08	5	53	168	4245
HLA-A*11:01	32	100	203	4136
HLA-A*11:02	32	100	203	4136
HLA-A*11:03	25	105	247	4094
HLA-A*11:04	25	105	208	4133
HLA-A*11:06	12	90	222	4147
HLA-A*11:12	32	100	203	4136
HLA-A*23:01	15	44	171	4241
HLA-A*23:03	15	44	171	4241
HLA-A*23:04	38	107	255	4071
HLA-A*24:02	8	34	127	4302
HLA-A*24:03	33	89	201	4148
HLA-A*24:04	1	24	118	4328
HLA-A*24:05	8	34	127	4302
HLA-A*24:06	5	36	151	4279
HLA-A*24:07	4	29	119	4319
HLA-A*24:08	2	34	144	4291
HLA-A*24:10	28	93	230	4120
HLA-A*24:13	15	44	171	4241
HLA-A*24:20	8	34	127	4302
HLA-A*24:21	8	34	127	4302
HLA-A*24:23	33	89	201	4148
HLA-A*25:01	0	7	78	4386
HLA-A*25:02	0	7	83	4381
HLA-A*26:01	3	24	114	4330
HLA-A*26:02	31	89	286	4065
HLA-A*26:03	0	24	180	4267
HLA-A*26:05	2	17	130	4322
HLA-A*26:08	1	38	168	4264
HLA-A*26:12	1	31	149	4290
HLA-A*26:18	1	31	149	4290
HLA-A*29:01	19	49	168	4235

	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-A*29:02	19	49	168	4235
HLA-A*30:01	57	213	738	3463
HLA-A*30:02	9	61	222	4179
HLA-A*30:04	0	32	366	4073
HLA-A*30:08	2	51	329	4089
HLA-A*31:01	56	127	262	4026
HLA-A*31:02	48	126	291	4006
HLA-A*31:04	78	147	329	3917
HLA-A*31:08	19	111	387	3954
HLA-A*32:01	26	73	310	4062
HLA-A*32:02	10	58	267	4136
HLA-A*32:03	8	53	240	4170
HLA-A*33:01	17	70	168	4216
HLA-A*33:03	30	91	207	4143
HLA-A*34:01	1	56	401	4013
HLA-A*34:02	11	86	282	4092
HLA-A*36:01	2	23	123	4323
HLA-A*43:01	1	23	155	4292
HLA-A*66:01	0	27	229	4215
HLA-A*66:02	1	47	361	4062
HLA-A*66:03	0	34	288	4149
HLA-A*68:01	50	121	310	3990
HLA-A*68:02	36	112	368	3955
HLA-A*68:03	25	99	246	4101
HLA-A*68:06	3	35	328	4105
HLA-A*68:12	50	121	310	3990
HLA-A*69:01	22	71	325	4053
HLA-A*74:01	5	34	146	4286
HLA-A*74:03	5	34	146	4286
HLA-A*80:01	6	17	63	4385

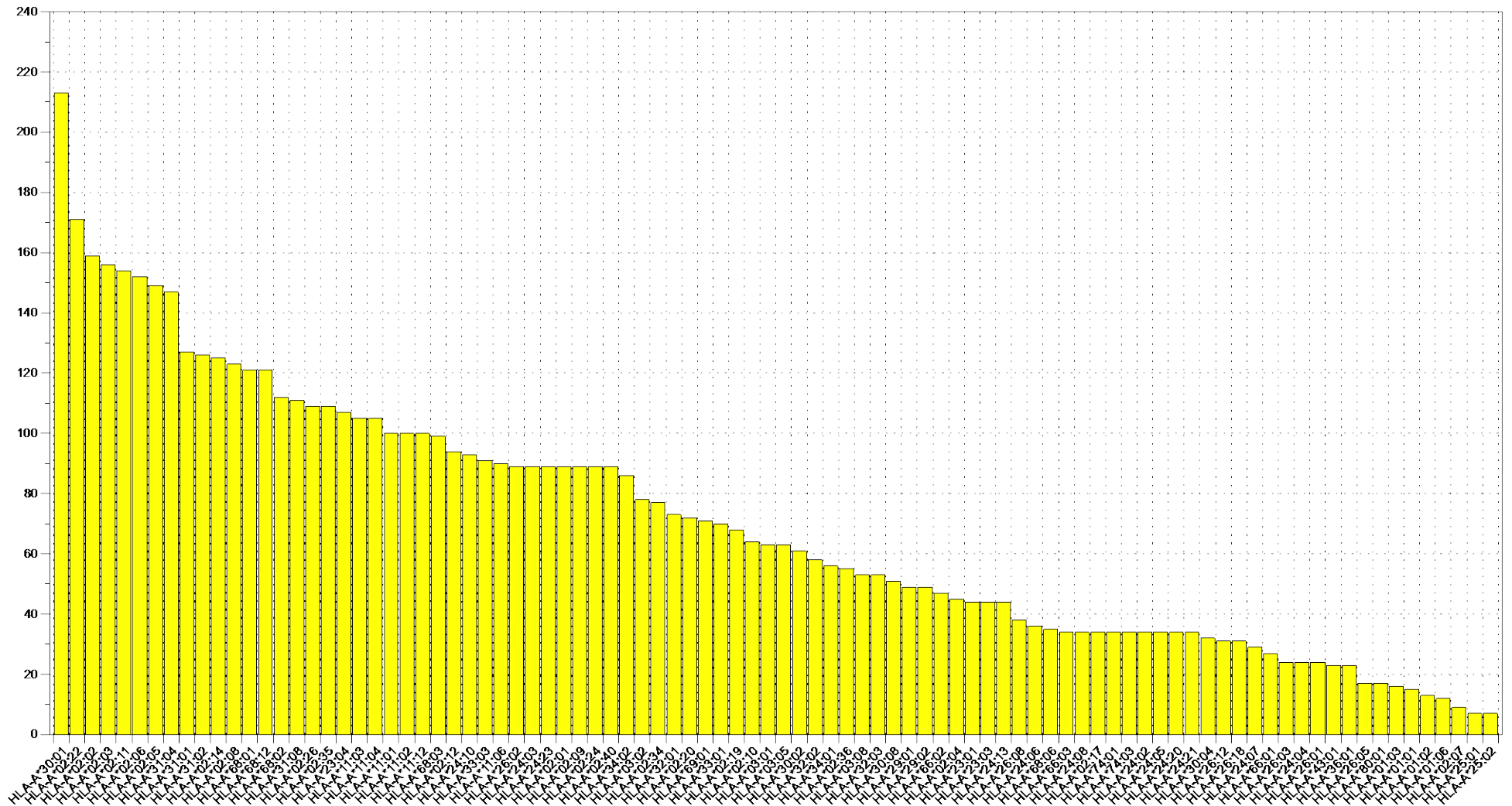
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-A*



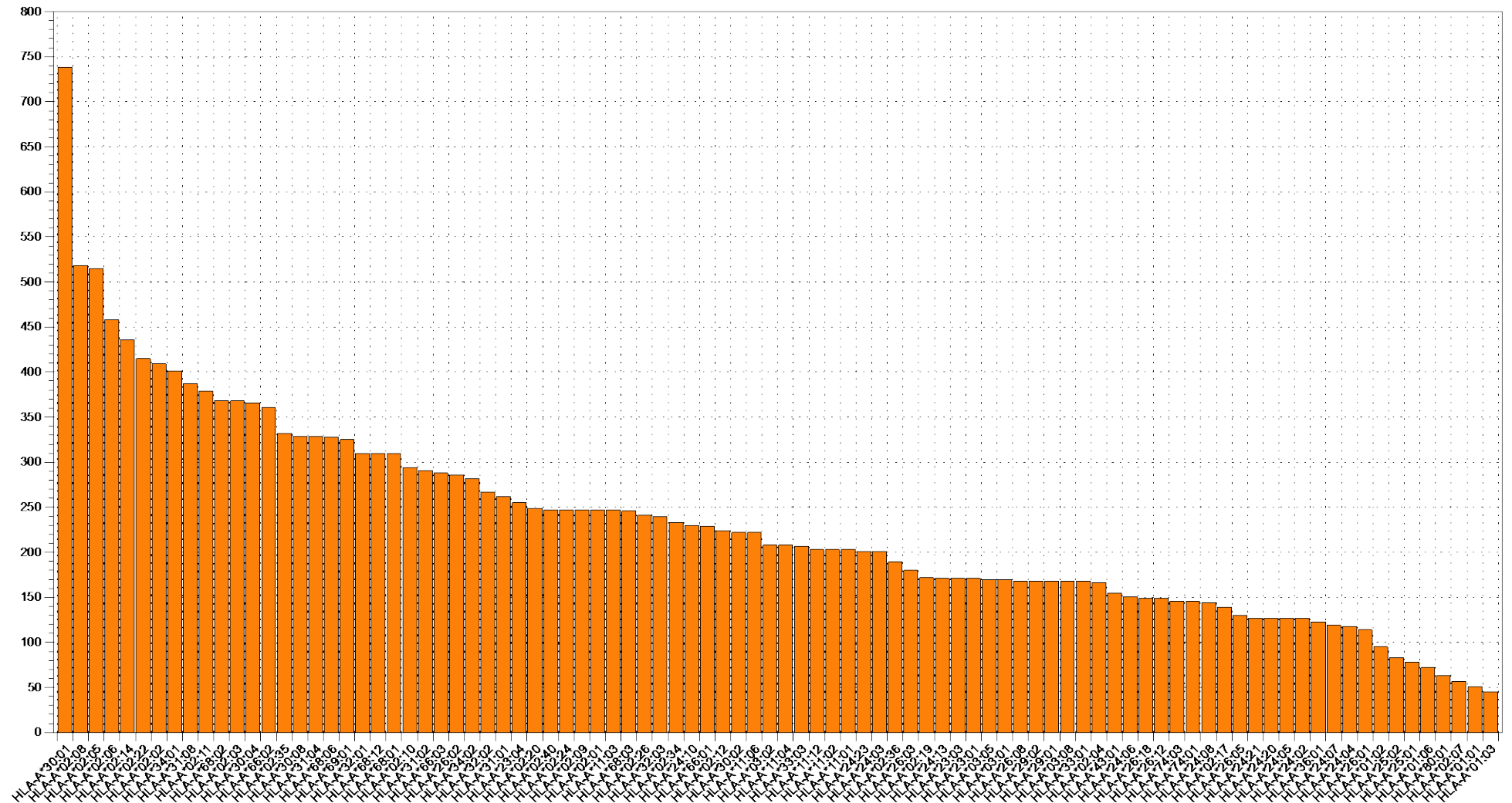
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 500$ nM) and weak (500 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-A alleles ordered by number of presented peptides with regular binding prediction



Alleles are ordered on the x-axis by their regular ($50 \text{ nM} < IC_{50} \leq 500 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-A alleles ordered by number of presented peptides with weak binding prediction



Alleles are ordered on the x-axis by their weak ($500 \text{ nM} < \text{IC}_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

Total number of peptides with strong, regular and weak binding predictions for *HLA-B*

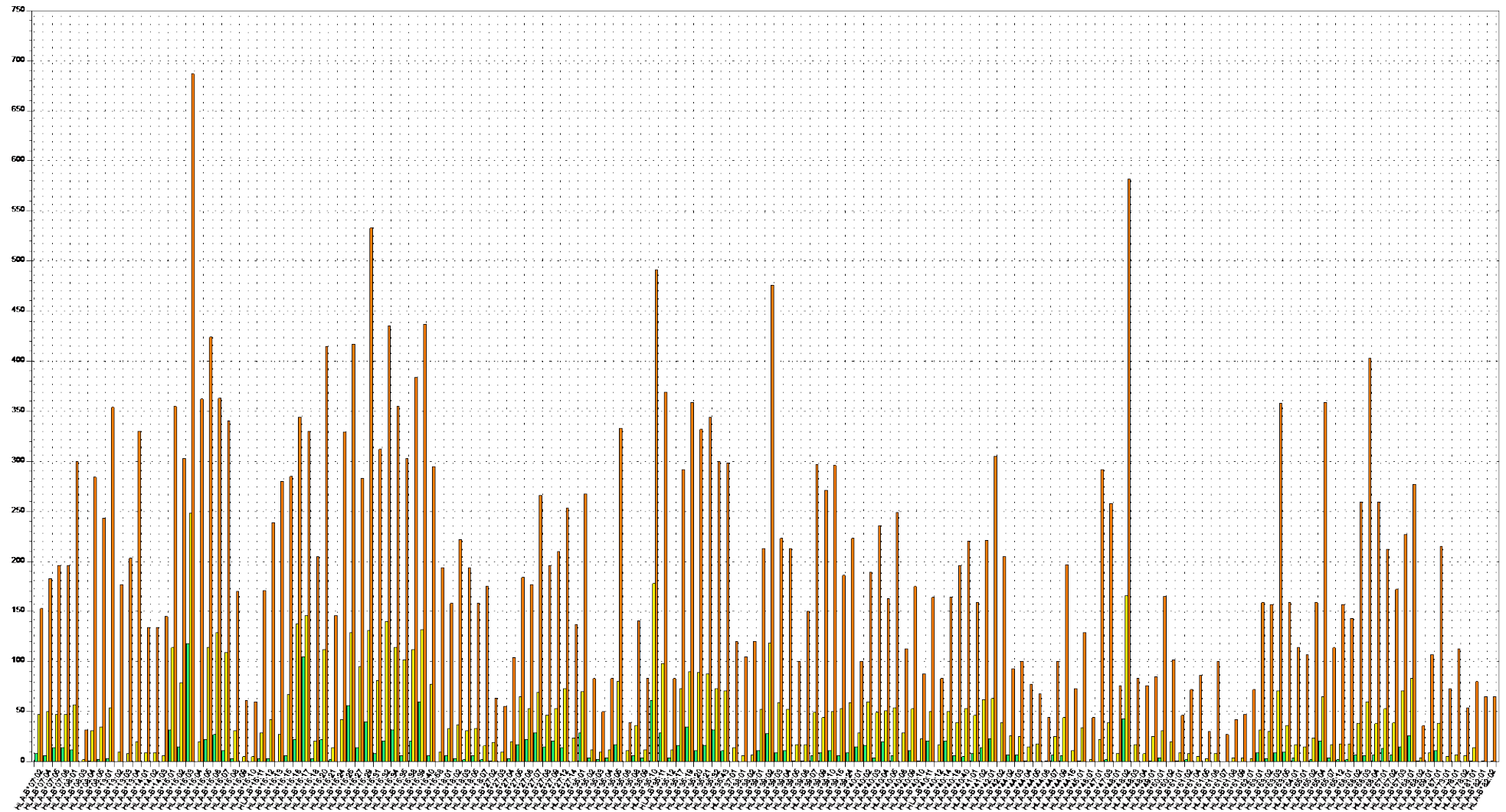
	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-B*07:02	8	47	153	4263
HLA-B*07:04	6	50	183	4232
HLA-B*07:05	14	47	196	4214
HLA-B*07:06	14	47	196	4214
HLA-B*08:01	12	57	300	4102
HLA-B*08:03	0	2	32	4437
HLA-B*08:04	1	31	284	4155
HLA-B*08:05	2	35	243	4191
HLA-B*13:01	3	54	354	4060
HLA-B*13:02	0	10	177	4284
HLA-B*13:03	0	8	203	4260
HLA-B*13:04	0	20	330	4121
HLA-B*14:01	0	9	134	4328
HLA-B*14:02	0	9	134	4328
HLA-B*14:03	0	6	145	4320
HLA-B*15:01	32	114	355	3970
HLA-B*15:02	15	79	303	4074
HLA-B*15:03	118	248	687	3418
HLA-B*15:04	0	20	362	4089
HLA-B*15:05	22	114	424	3911
HLA-B*15:06	27	129	363	3952
HLA-B*15:07	11	109	340	4011
HLA-B*15:08	3	31	170	4267
HLA-B*15:09	0	5	61	4405
HLA-B*15:10	0	5	60	4406
HLA-B*15:11	3	29	171	4268
HLA-B*15:12	3	42	239	4187
HLA-B*15:13	0	27	280	4164
HLA-B*15:15	6	67	285	4113
HLA-B*15:16	22	138	344	3967
HLA-B*15:17	105	146	330	3890
HLA-B*15:18	3	21	205	4242
HLA-B*15:20	22	112	415	3922
HLA-B*15:21	2	14	146	4309
HLA-B*15:24	0	42	329	4100
HLA-B*15:25	56	129	417	3869
HLA-B*15:27	14	95	283	4079
HLA-B*15:29	40	131	533	3767
HLA-B*15:31	8	81	312	4070
HLA-B*15:32	21	140	435	3875
HLA-B*15:34	32	114	355	3970
HLA-B*15:35	6	102	303	4060
HLA-B*15:38	21	112	384	3954
HLA-B*15:39	60	132	437	3842
HLA-B*15:40	6	77	295	4093
HLA-B*15:58	0	10	194	4267
HLA-B*18:01	6	33	158	4274
HLA-B*18:02	3	37	222	4209
HLA-B*18:03	2	31	194	4244
HLA-B*18:05	6	33	158	4274
HLA-B*18:07	2	16	175	4278
HLA-B*27:02	1	19	63	4388
HLA-B*27:03	0	10	55	4406
HLA-B*27:04	3	20	104	4344
HLA-B*27:05	17	65	184	4205
HLA-B*27:06	22	53	177	4219
HLA-B*27:07	29	69	266	4107
HLA-B*27:08	15	46	196	4214
HLA-B*27:09	21	53	210	4187
HLA-B*27:12	14	73	253	4131
HLA-B*27:14	0	24	137	4310
HLA-B*35:01	29	70	267	4105

	IC ₅₀ ≤ 50 nM Strong binders	50 nM < IC ₅₀ ≤ 500 nM Regular binders	500 nM < IC ₅₀ ≤ 5000 nM Weak binders	IC ₅₀ > 5000 nM Non binders
HLA-B*35:02	4	12	83	4372
HLA-B*35:03	2	10	50	4409
HLA-B*35:04	4	12	83	4372
HLA-B*35:05	17	80	333	4041
HLA-B*35:06	0	11	39	4421
HLA-B*35:08	6	36	141	4288
HLA-B*35:09	4	12	83	4372
HLA-B*35:10	61	178	491	3741
HLA-B*35:11	29	98	369	3975
HLA-B*35:12	4	12	83	4372
HLA-B*35:17	16	73	292	4090
HLA-B*35:19	35	90	359	3987
HLA-B*35:20	11	89	332	4039
HLA-B*35:21	16	88	344	4023
HLA-B*35:32	32	73	300	4066
HLA-B*35:43	11	71	298	4091
HLA-B*37:01	0	14	120	4337
HLA-B*38:01	0	6	105	4360
HLA-B*38:02	0	7	120	4344
HLA-B*39:01	11	52	213	4195
HLA-B*39:02	28	119	476	3848
HLA-B*39:03	9	59	223	4180
HLA-B*39:04	11	52	213	4195
HLA-B*39:05	1	17	100	4353
HLA-B*39:06	1	17	150	4303
HLA-B*39:07	6	49	297	4119
HLA-B*39:09	9	44	271	4147
HLA-B*39:10	11	50	296	4114
HLA-B*39:15	6	53	186	4226
HLA-B*39:24	9	59	223	4180
HLA-B*40:01	15	29	100	4327
HLA-B*40:02	16	60	189	4206
HLA-B*40:03	4	49	236	4182
HLA-B*40:04	20	51	163	4237
HLA-B*40:05	6	54	249	4162
HLA-B*40:06	0	29	113	4329
HLA-B*40:09	11	53	175	4232
HLA-B*40:10	1	23	88	4359
HLA-B*40:11	21	50	164	4236
HLA-B*40:12	0	17	83	4371
HLA-B*40:14	21	50	164	4236
HLA-B*40:16	6	39	196	4230
HLA-B*40:40	5	53	220	4193
HLA-B*41:01	8	46	159	4258
HLA-B*41:02	14	62	221	4174
HLA-B*42:01	23	63	305	4080
HLA-B*42:02	0	39	205	4227
HLA-B*44:02	7	26	93	4345
HLA-B*44:03	7	25	100	4339
HLA-B*44:04	1	15	77	4378
HLA-B*44:05	0	18	68	4385
HLA-B*44:06	0	1	44	4426
HLA-B*44:07	7	25	100	4339
HLA-B*44:09	6	44	197	4224
HLA-B*44:15	0	11	73	4387
HLA-B*45:01	1	34	129	4307
HLA-B*46:01	0	2	44	4425
HLA-B*47:01	0	22	292	4157
HLA-B*47:03	2	39	258	4172
HLA-B*48:01	0	8	76	4387
HLA-B*48:02	43	166	582	3680
HLA-B*48:03	0	17	83	4371
HLA-B*48:04	0	8	76	4387
HLA-B*49:01	1	25	85	4360
HLA-B*50:01	4	31	165	4271

	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-B*50:02	0	20	102	4349
HLA-B*51:01	1	9	46	4415
HLA-B*51:02	2	8	72	4389
HLA-B*51:04	0	5	86	4380
HLA-B*51:05	0	3	30	4438
HLA-B*51:06	0	8	100	4363
HLA-B*51:07	0	0	27	4444
HLA-B*51:08	0	4	42	4425
HLA-B*51:09	0	4	47	4420
HLA-B*52:01	0	3	72	4396
HLA-B*53:01	9	32	159	4271
HLA-B*53:02	3	30	157	4281
HLA-B*53:03	9	71	358	4033
HLA-B*53:05	10	36	159	4266
HLA-B*54:01	4	17	114	4336
HLA-B*55:01	0	15	107	4349
HLA-B*55:02	2	24	159	4286
HLA-B*55:04	21	65	359	4026
HLA-B*55:07	4	17	114	4336
HLA-B*55:12	2	18	157	4294
HLA-B*56:01	2	18	143	4308
HLA-B*56:02	7	38	259	4167
HLA-B*56:03	6	60	403	4002
HLA-B*56:04	7	38	259	4167
HLA-B*57:01	13	53	212	4193
HLA-B*57:02	7	39	172	4253
HLA-B*57:03	15	71	227	4158
HLA-B*58:01	26	83	277	4085
HLA-B*58:02	1	4	36	4430
HLA-B*59:01	0	9	107	4355
HLA-B*67:01	11	38	215	4207
HLA-B*73:01	0	5	73	4393
HLA-B*78:01	0	7	113	4351
HLA-B*78:02	0	6	54	4411
HLA-B*81:01	1	14	80	4376
HLA-B*82:01	0	1	65	4405
HLA-B*82:02	0	1	65	4405

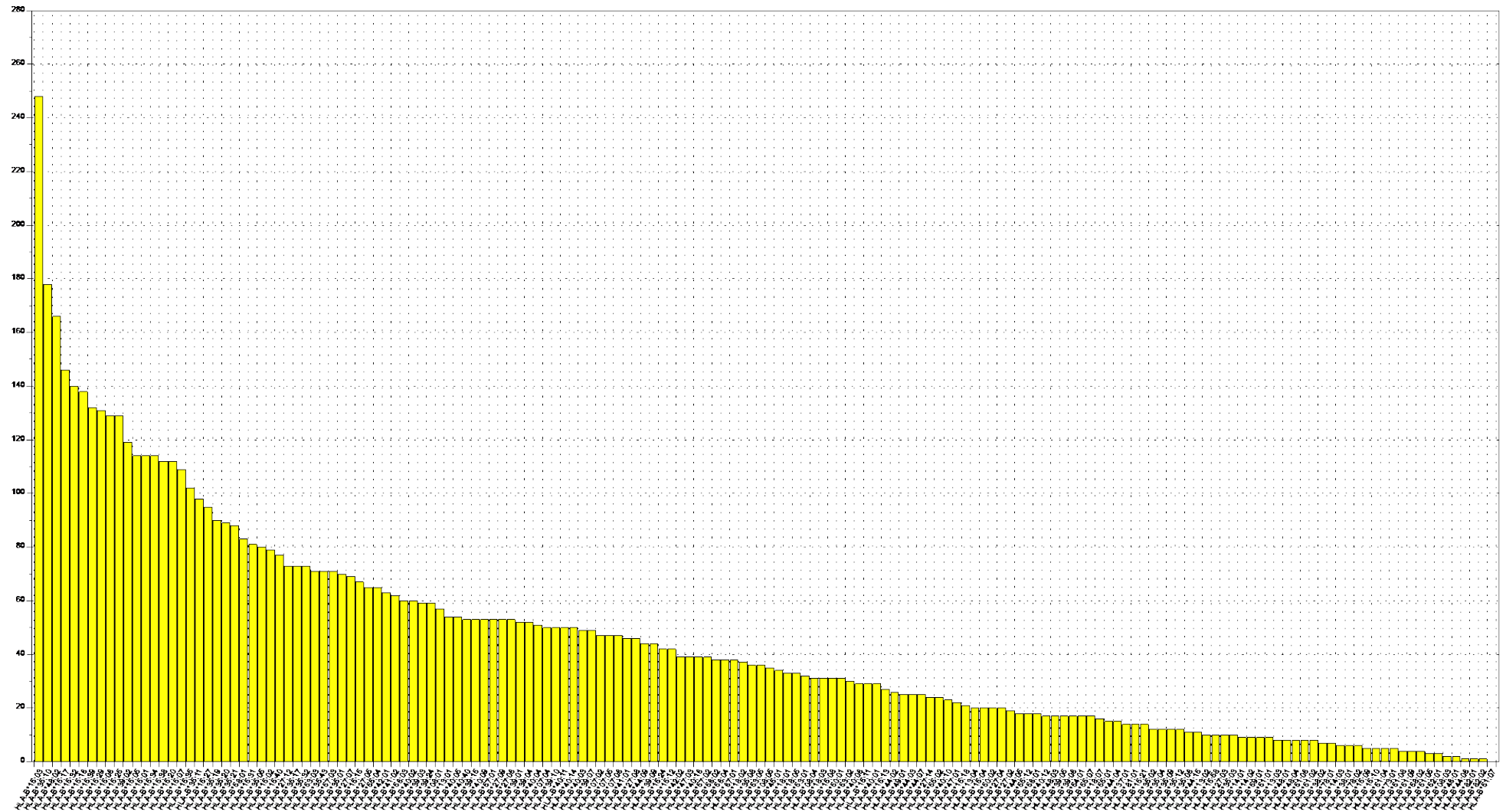
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-B*



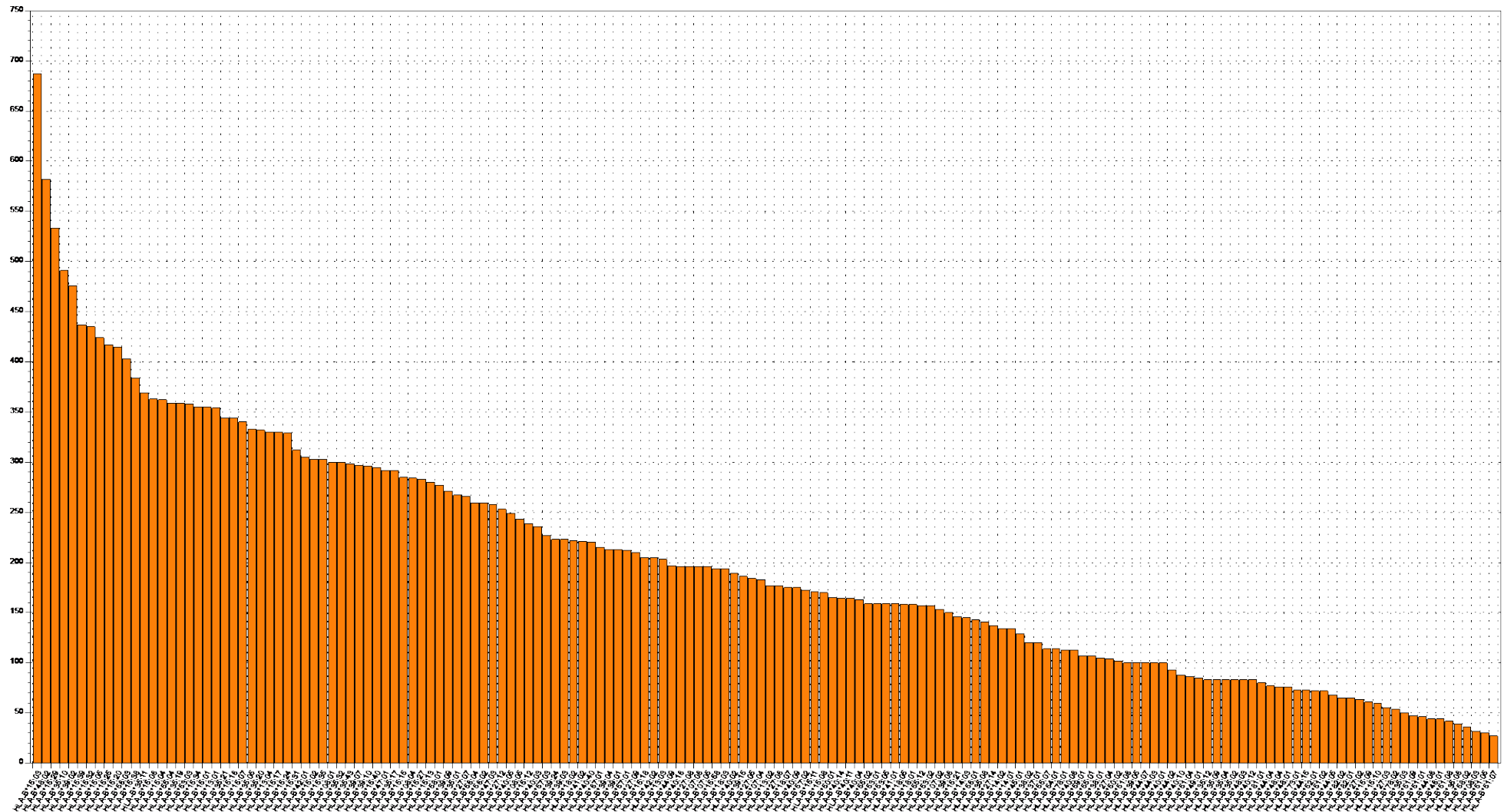
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 500$ nM) and weak (500 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-B alleles ordered by number of presented peptides with regular binding prediction



Alleles are ordered on the x-axis by their regular ($50 \text{ nM} < IC_{50} \leq 500 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-B alleles ordered by number of presented peptides with weak binding prediction



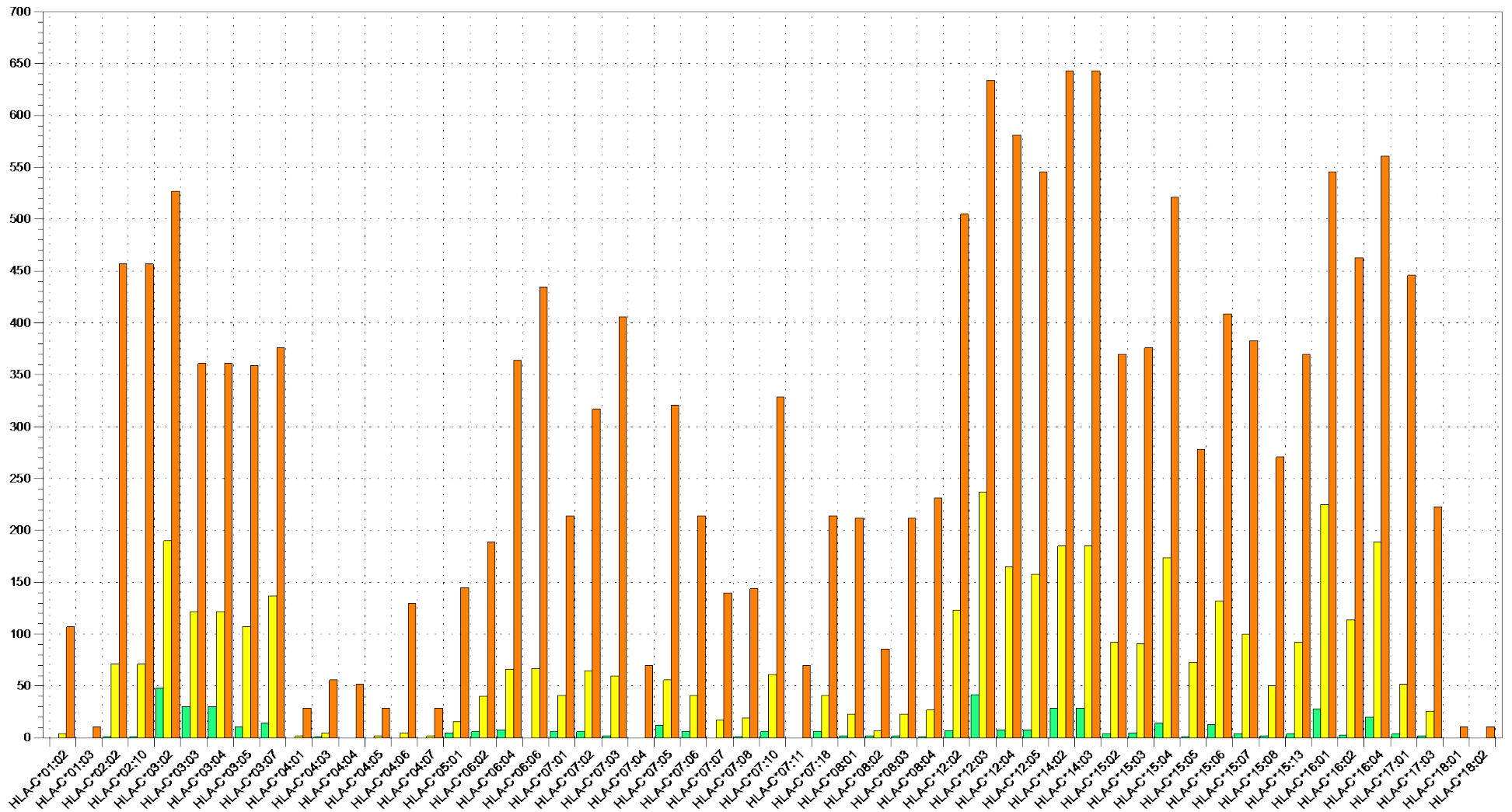
Alleles are ordered on the x-axis by their weak ($500 \text{ nM} < IC_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

Total number of peptides with strong, regular and weak binding predictions for *HLA-C*

	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-C*01:02	0	4	107	4360
HLA-C*01:03	0	0	11	4460
HLA-C*02:02	1	71	457	3942
HLA-C*02:10	1	71	457	3942
HLA-C*03:02	48	190	527	3706
HLA-C*03:03	30	122	361	3958
HLA-C*03:04	30	122	361	3958
HLA-C*03:05	11	107	359	3994
HLA-C*03:07	14	137	376	3944
HLA-C*04:01	0	2	29	4440
HLA-C*04:03	1	5	56	4409
HLA-C*04:04	0	0	52	4419
HLA-C*04:05	0	2	29	4440
HLA-C*04:06	0	5	130	4336
HLA-C*04:07	0	2	29	4440
HLA-C*05:01	5	16	145	4305
HLA-C*06:02	6	40	189	4236
HLA-C*06:04	8	66	364	4033
HLA-C*06:06	0	67	435	3969
HLA-C*07:01	6	41	214	4210
HLA-C*07:02	6	65	317	4083
HLA-C*07:03	2	60	406	4003
HLA-C*07:04	0	0	70	4401
HLA-C*07:05	12	56	321	4082
HLA-C*07:06	6	41	214	4210
HLA-C*07:07	0	17	140	4314
HLA-C*07:08	1	19	144	4307
HLA-C*07:10	6	61	329	4075
HLA-C*07:11	0	0	70	4401
HLA-C*07:18	6	41	214	4210
HLA-C*08:01	2	23	212	4234
HLA-C*08:02	2	7	86	4376
HLA-C*08:03	2	23	212	4234
HLA-C*08:04	1	27	231	4212
HLA-C*12:02	7	123	505	3836
HLA-C*12:03	42	237	634	3558
HLA-C*12:04	8	165	581	3717
HLA-C*12:05	8	158	546	3759
HLA-C*14:02	29	185	643	3614
HLA-C*14:03	29	185	643	3614
HLA-C*15:02	4	92	370	4005
HLA-C*15:03	5	91	376	3999
HLA-C*15:04	14	174	521	3762
HLA-C*15:05	1	73	278	4119
HLA-C*15:06	13	132	409	3917
HLA-C*15:07	4	100	383	3984
HLA-C*15:08	2	50	271	4148
HLA-C*15:13	4	92	370	4005
HLA-C*16:01	28	225	546	3672
HLA-C*16:02	3	114	463	3891
HLA-C*16:04	20	189	561	3701
HLA-C*17:01	4	52	446	3969
HLA-C*17:03	2	26	223	4220
HLA-C*18:01	0	0	11	4460
HLA-C*18:02	0	0	11	4460

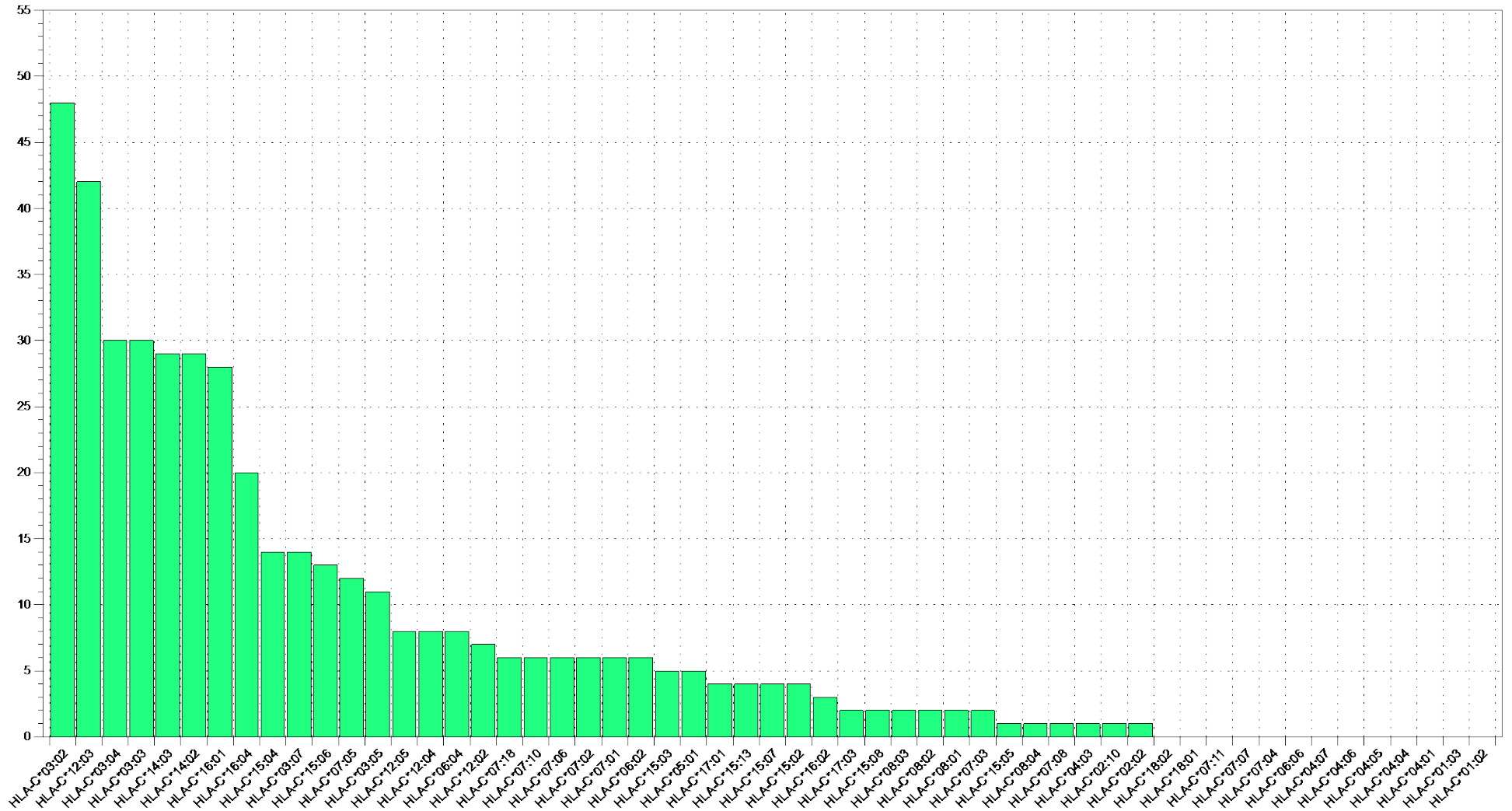
Alleles are ordered alphabetically.

General binding prediction tendencies for HLA-C



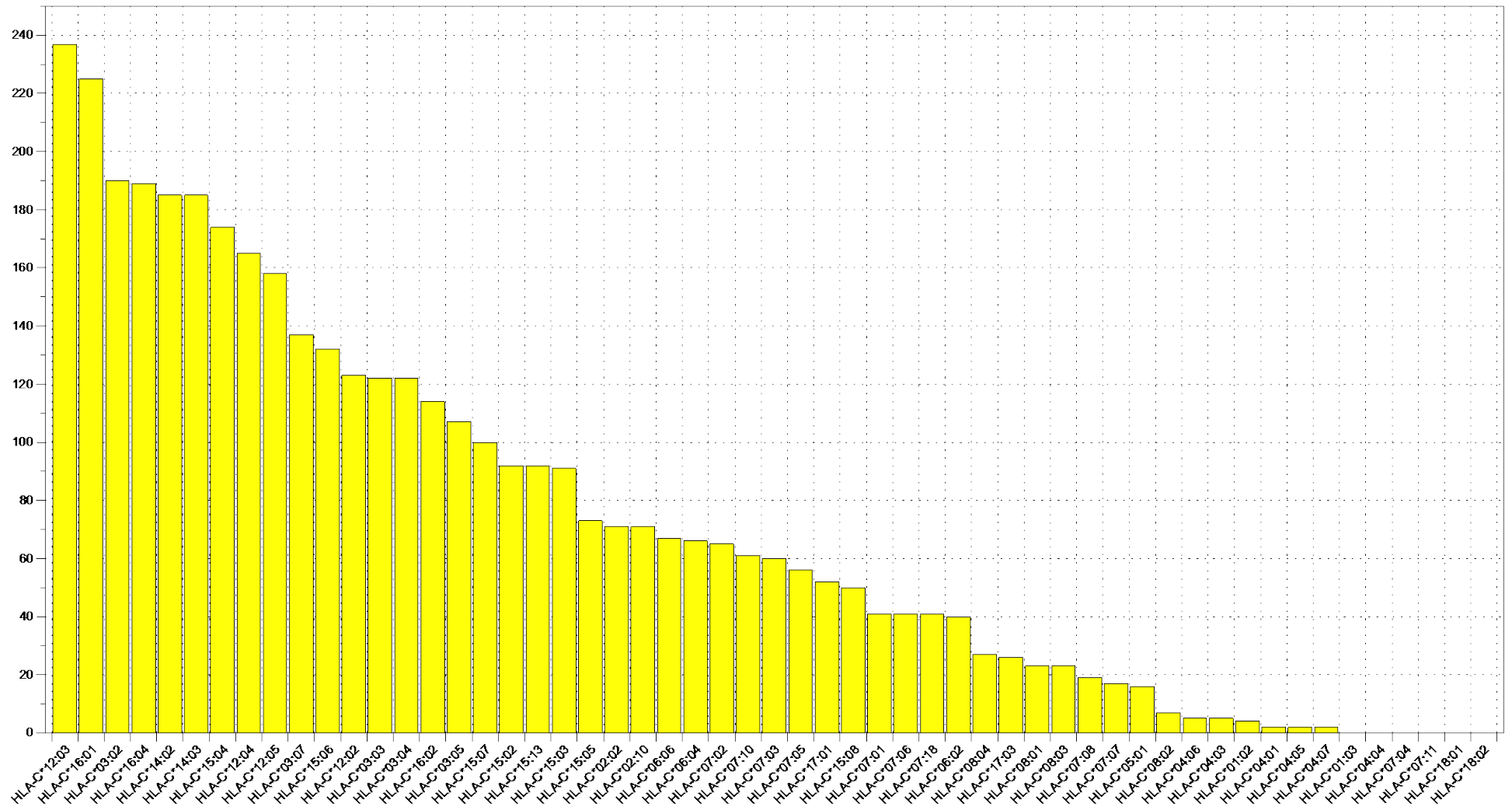
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular ($50 \text{ nM} < IC_{50} \leq 500$ nM) and weak ($500 \text{ nM} < IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-C alleles ordered by number of presented peptides with strong binding prediction



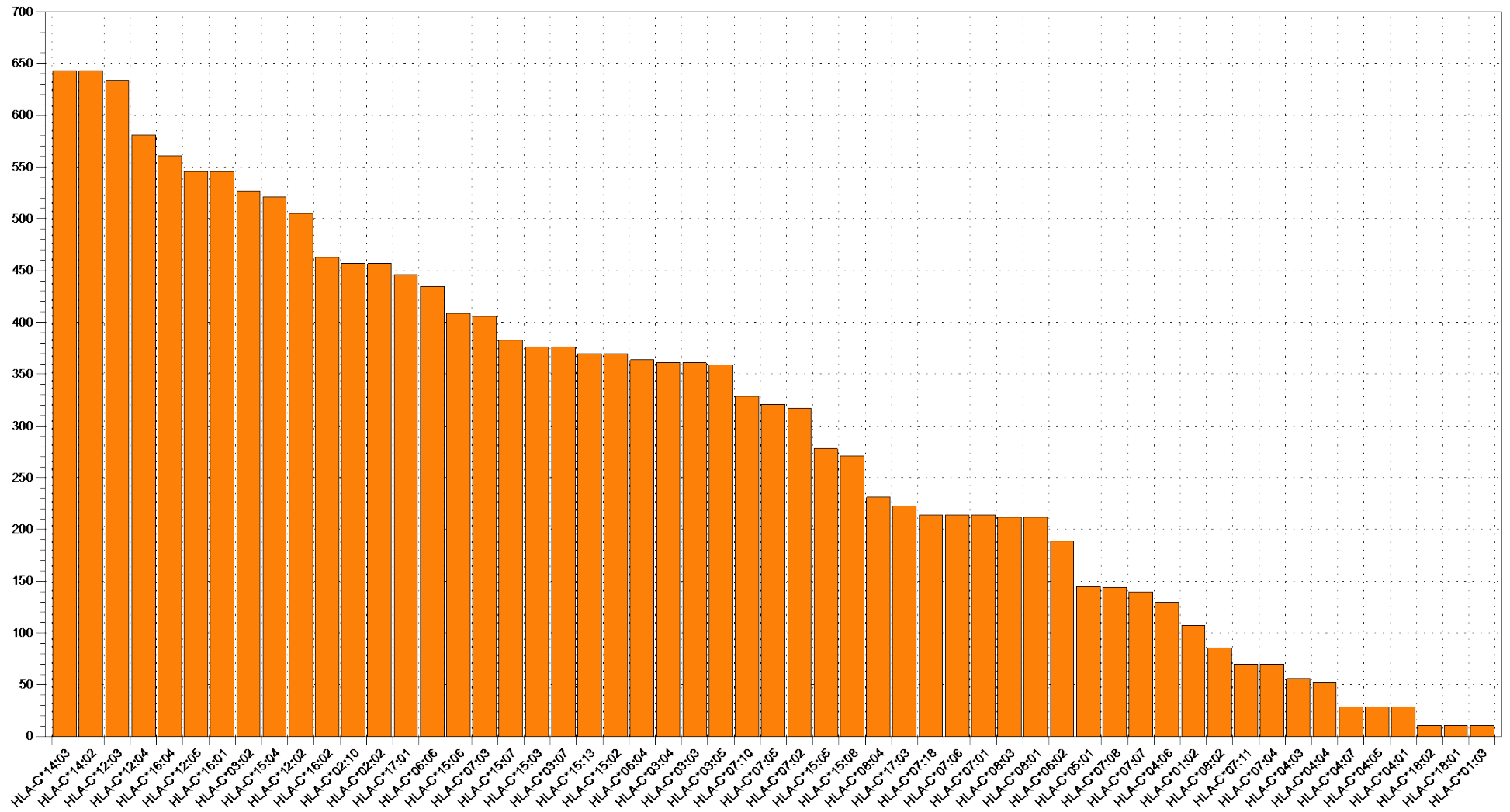
Alleles are ordered on the x-axis by their strong (IC₅₀ ≤ 50 nM) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-C alleles ordered by number of presented peptides with regular binding prediction



Alleles are ordered on the x-axis by their regular ($50 \text{ nM} < \text{IC}_{50} \leq 500 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-C alleles ordered by number of presented peptides with weak binding prediction



Alleles are ordered on the x-axis by their weak (500 nM < IC₅₀ ≤ 5000 nM) binding prediction and the number of peptides presented are displayed on the y-axis.

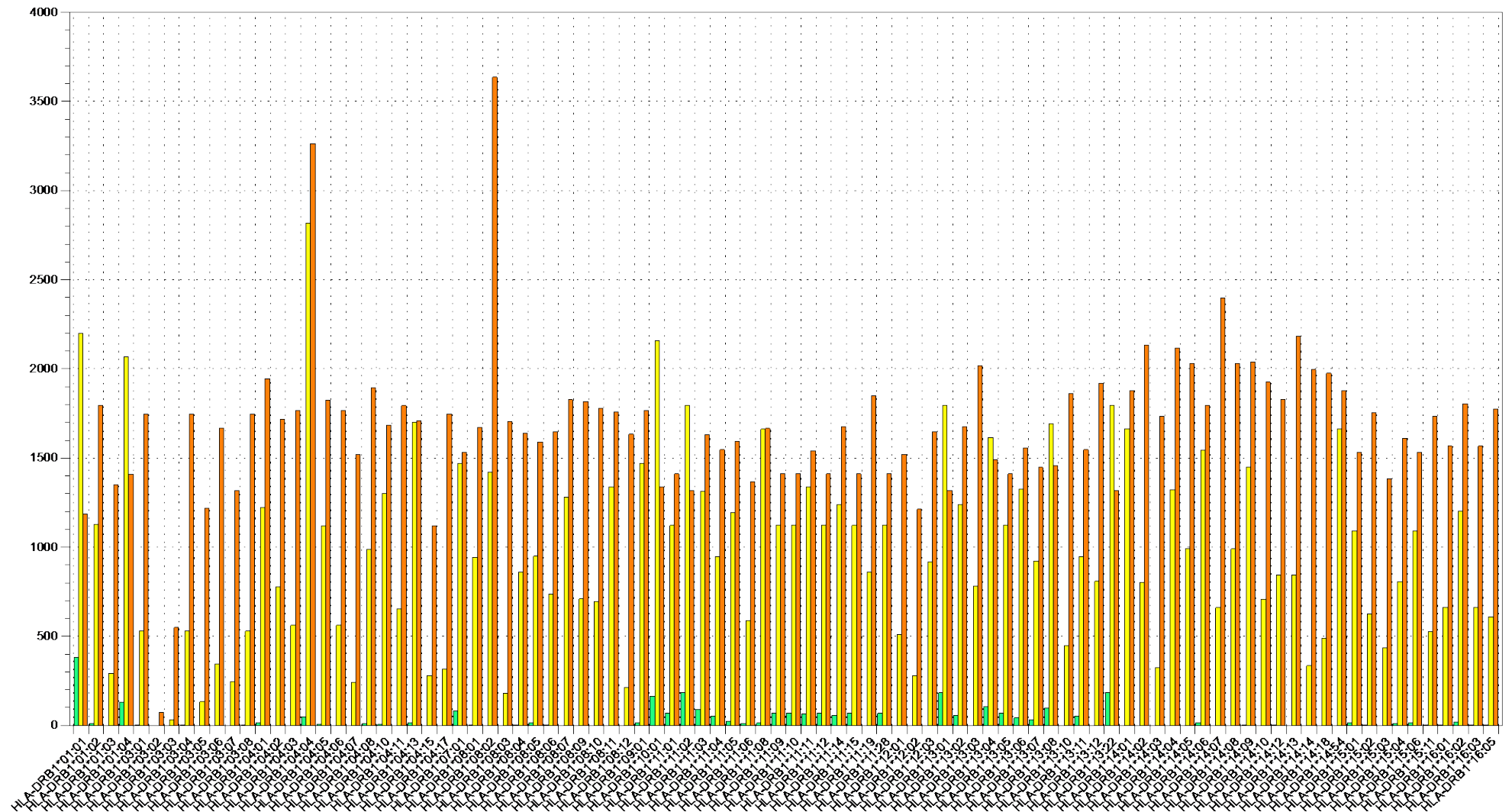
Total number of peptides with strong, regular and weak binding predictions for *HLA-DRB1*

	IC ₅₀ ≤ 50 nM Strong binders	50 nM < IC ₅₀ ≤ 1000 nM Regular binders	1000 nM < IC ₅₀ ≤ 5000 nM Weak binders	IC ₅₀ > 5000 nM Non binders
HLA-DRB1*01:01	381	2200	1184	665
HLA-DRB1*01:02	10	1130	1795	1495
HLA-DRB1*01:03	0	293	1351	2786
HLA-DRB1*01:04	133	2068	1410	819
HLA-DRB1*03:01	1	529	1747	2153
HLA-DRB1*03:02	0	0	75	4355
HLA-DRB1*03:03	0	31	550	3849
HLA-DRB1*03:04	1	529	1747	2153
HLA-DRB1*03:05	0	134	1220	3076
HLA-DRB1*03:06	0	344	1668	2418
HLA-DRB1*03:07	0	247	1317	2866
HLA-DRB1*03:08	1	529	1747	2153
HLA-DRB1*04:01	16	1222	1945	1247
HLA-DRB1*04:02	0	776	1716	1938
HLA-DRB1*04:03	0	563	1767	2100
HLA-DRB1*04:04	24	1409	1632	1365
HLA-DRB1*04:05	9	1120	1826	1475
HLA-DRB1*04:06	0	563	1767	2100
HLA-DRB1*04:07	0	241	1520	2669
HLA-DRB1*04:08	11	989	1896	1534
HLA-DRB1*04:10	6	1303	1684	1437
HLA-DRB1*04:11	0	653	1795	1982
HLA-DRB1*04:13	16	1702	1708	1004
HLA-DRB1*04:15	0	280	1120	3030
HLA-DRB1*04:17	0	318	1747	2365
HLA-DRB1*07:01	80	1472	1534	1344
HLA-DRB1*08:01	1	944	1671	1814
HLA-DRB1*08:02	0	710	1818	1902
HLA-DRB1*08:03	0	180	1706	2544
HLA-DRB1*08:04	5	859	1639	1927
HLA-DRB1*08:05	14	949	1591	1876
HLA-DRB1*08:06	3	738	1648	2041
HLA-DRB1*08:07	0	1279	1827	1324
HLA-DRB1*08:09	0	710	1818	1902
HLA-DRB1*08:10	0	697	1780	1953
HLA-DRB1*08:11	0	1339	1757	1334
HLA-DRB1*08:12	0	214	1634	2582
HLA-DRB1*09:01	16	1468	1768	1178
HLA-DRB1*10:01	164	2159	1337	770
HLA-DRB1*11:01	69	1123	1411	1827
HLA-DRB1*11:02	183	1797	1317	1133
HLA-DRB1*11:03	90	1315	1631	1394
HLA-DRB1*11:04	54	947	1547	1882
HLA-DRB1*11:05	23	1192	1595	1620
HLA-DRB1*11:06	13	588	1366	2463
HLA-DRB1*11:08	14	1663	1667	1086
HLA-DRB1*11:09	69	1123	1411	1827
HLA-DRB1*11:10	69	1123	1411	1827
HLA-DRB1*11:11	65	1339	1541	1485
HLA-DRB1*11:12	69	1123	1411	1827
HLA-DRB1*11:14	58	1239	1678	1455
HLA-DRB1*11:15	69	1123	1411	1827
HLA-DRB1*11:19	0	862	1850	1718
HLA-DRB1*11:28	69	1123	1411	1827
HLA-DRB1*12:01	0	512	1520	2398
HLA-DRB1*12:02	0	278	1213	2939
HLA-DRB1*12:03	0	918	1649	1863
HLA-DRB1*13:01	183	1797	1317	1133
HLA-DRB1*13:02	58	1239	1678	1455
HLA-DRB1*13:03	0	780	2019	1631
HLA-DRB1*13:04	106	1616	1490	1218
HLA-DRB1*13:05	69	1123	1411	1827

	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 1000 nM Regular binders	1000 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-DRB1*13:06	43	1326	1557	1504
HLA-DRB1*13:07	32	922	1449	2027
HLA-DRB1*13:08	96	1692	1459	1183
HLA-DRB1*13:10	0	449	1862	2119
HLA-DRB1*13:11	54	947	1547	1882
HLA-DRB1*13:12	0	809	1921	1700
HLA-DRB1*13:22	183	1797	1317	1133
HLA-DRB1*14:01	0	1664	1879	887
HLA-DRB1*14:02	0	804	2133	1493
HLA-DRB1*14:03	0	324	1732	2374
HLA-DRB1*14:04	0	1324	2118	988
HLA-DRB1*14:05	0	990	2032	1408
HLA-DRB1*14:06	17	1545	1796	1072
HLA-DRB1*14:07	0	661	2397	1372
HLA-DRB1*14:08	0	990	2032	1408
HLA-DRB1*14:09	4	1449	2039	938
HLA-DRB1*14:10	0	709	1926	1795
HLA-DRB1*14:12	1	845	1830	1754
HLA-DRB1*14:13	0	845	2182	1403
HLA-DRB1*14:14	0	337	1996	2097
HLA-DRB1*14:18	0	490	1976	1964
HLA-DRB1*14:54	0	1664	1879	887
HLA-DRB1*15:01	15	1092	1534	1789
HLA-DRB1*15:02	5	625	1756	2044
HLA-DRB1*15:03	0	437	1384	2609
HLA-DRB1*15:04	13	808	1610	1999
HLA-DRB1*15:06	15	1092	1534	1789
HLA-DRB1*15:11	2	527	1734	2167
HLA-DRB1*16:01	4	663	1567	2196
HLA-DRB1*16:02	20	1204	1806	1400
HLA-DRB1*16:03	4	663	1567	2196
HLA-DRB1*16:05	3	609	1776	2042

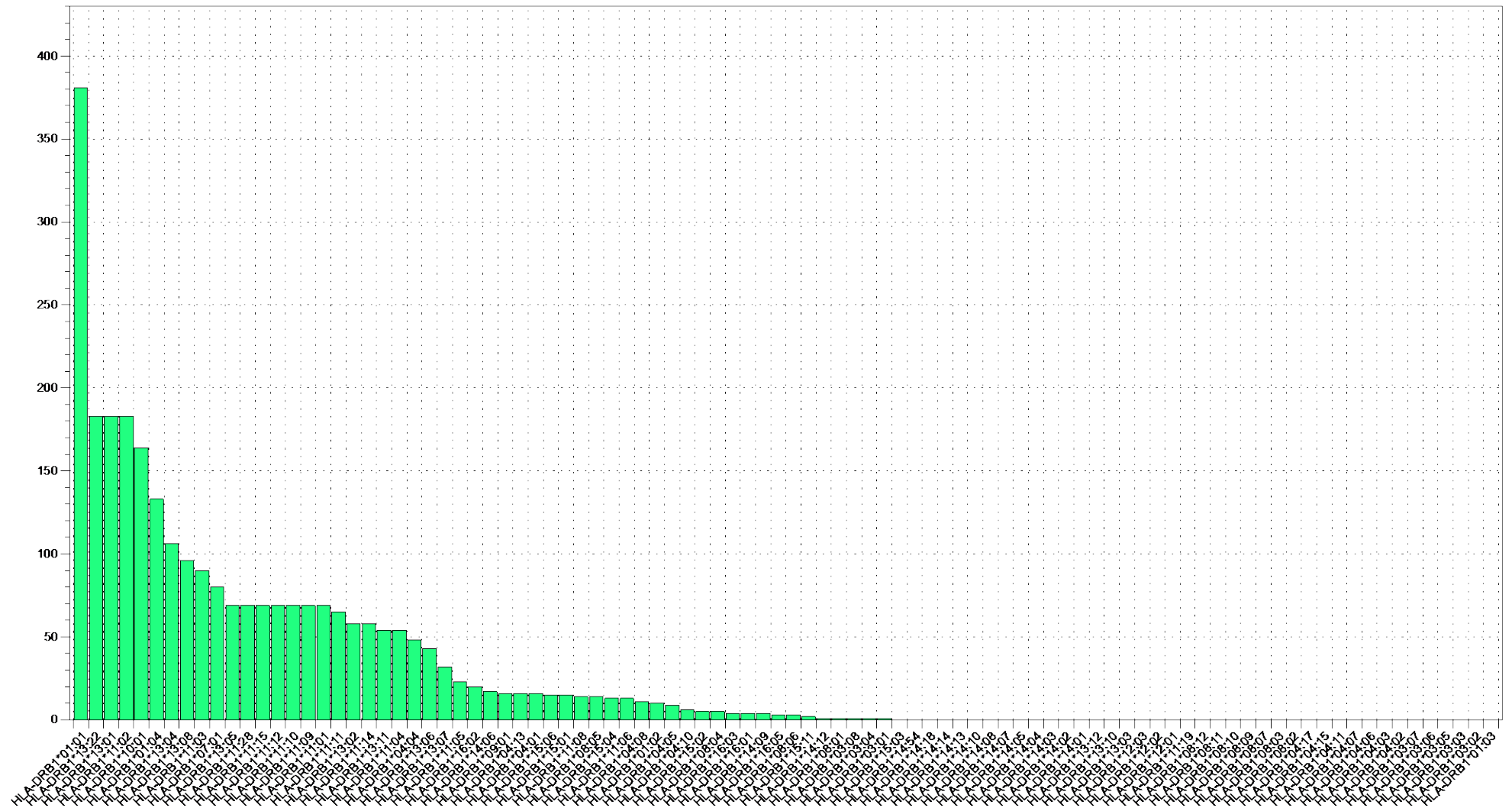
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-DRB1*



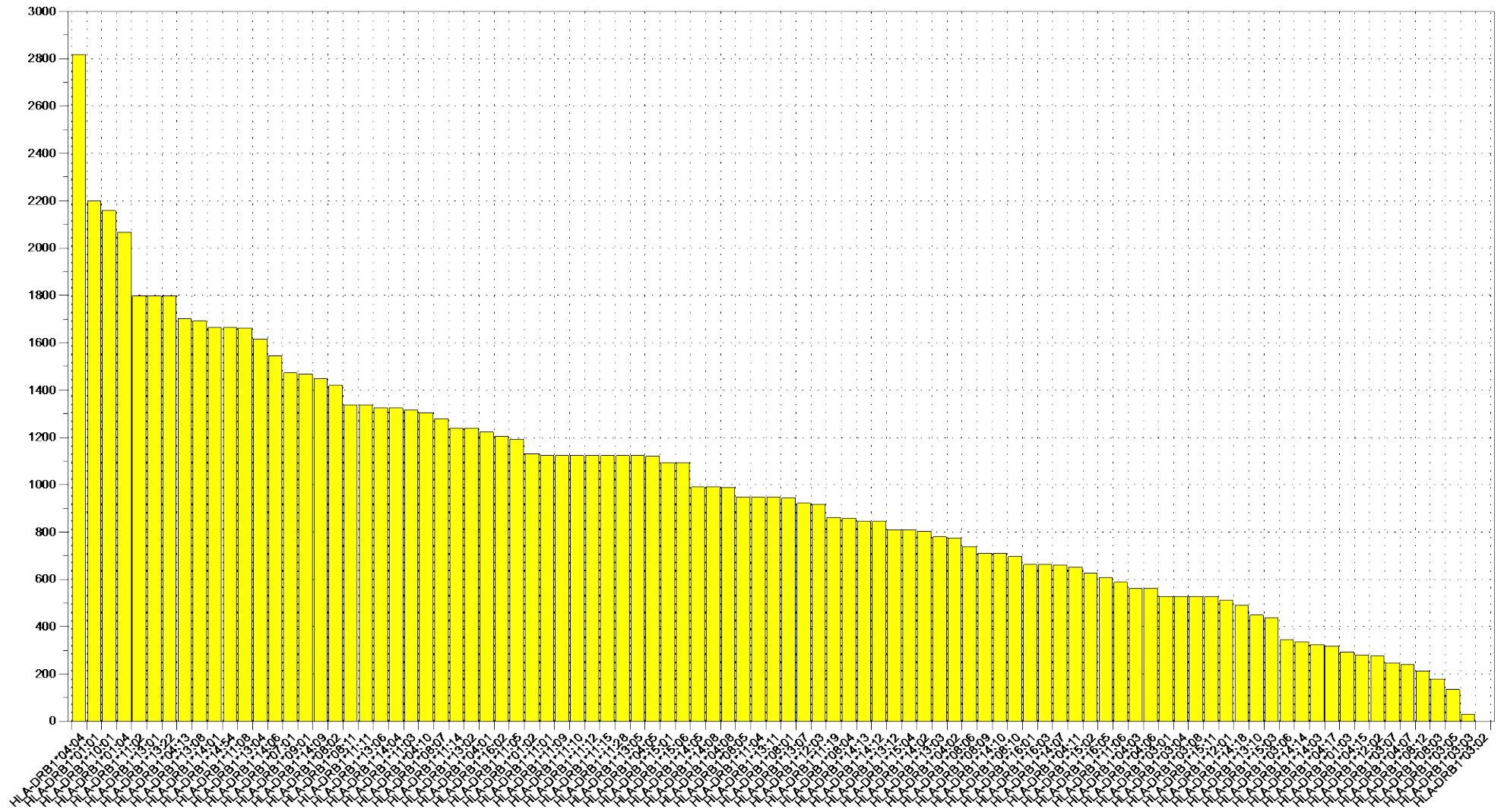
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 1000$ nM) and weak (1000 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-DRB1 alleles ordered by number of presented peptides with strong binding prediction



Alleles are ordered on the x-axis by their strong ($IC_{50} \leq 50$ nM) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-DRB1 alleles ordered by number of presented peptides with regular binding prediction



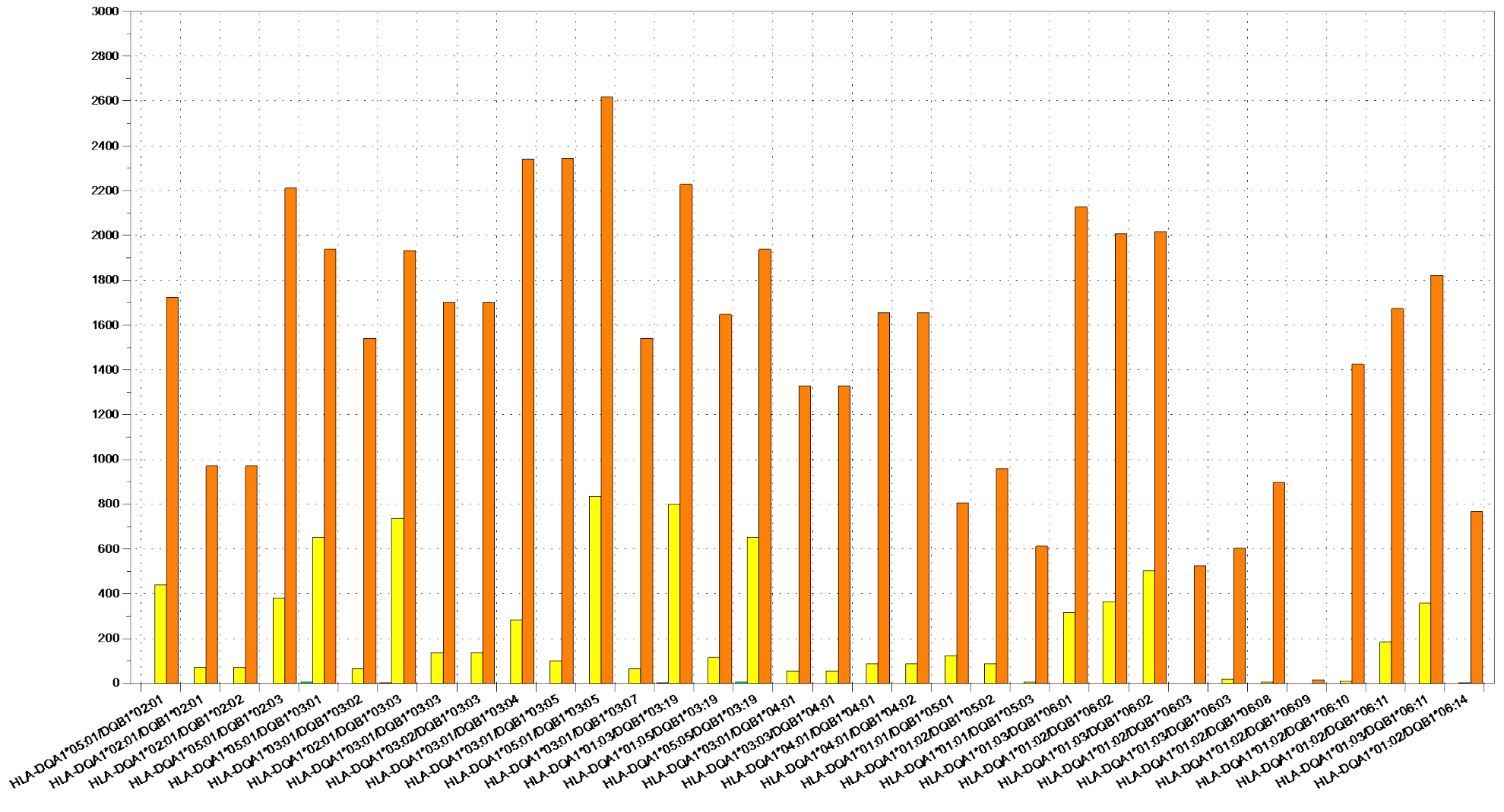
Alleles are ordered on the x-axis by their regular ($50 \text{ nM} < IC_{50} \leq 1000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

Total number of peptides with strong, regular and weak binding predictions for *HLA-DQA1/-DQB1*

	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 1000 nM Regular binders	1000 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-DQA1*05:01/DQB1*02:01	0	439	1725	2266
HLA-DQA1*02:01/DQB1*02:01	0	72	971	3387
HLA-DQA1*02:01/DQB1*02:02	0	72	971	3387
HLA-DQA1*05:01/DQB1*02:03	0	381	2212	1837
HLA-DQA1*05:01/DQB1*03:01	7	653	1938	1832
HLA-DQA1*03:01/DQB1*03:02	0	65	1542	2823
HLA-DQA1*02:01/DQB1*03:03	2	739	1933	1756
HLA-DQA1*03:01/DQB1*03:03	0	137	1702	2591
HLA-DQA1*03:02/DQB1*03:03	0	137	1702	2591
HLA-DQA1*03:01/DQB1*03:04	0	284	2340	1806
HLA-DQA1*03:01/DQB1*03:05	0	100	2343	1987
HLA-DQA1*05:01/DQB1*03:05	0	834	2617	979
HLA-DQA1*03:01/DQB1*03:07	0	65	1542	2823
HLA-DQA1*01:03/DQB1*03:19	3	801	2229	1397
HLA-DQA1*01:05/DQB1*03:19	0	116	1647	2667
HLA-DQA1*05:05/DQB1*03:19	7	653	1938	1832
HLA-DQA1*03:01/DQB1*04:01	0	56	1329	3045
HLA-DQA1*03:03/DQB1*04:01	0	56	1329	3045
HLA-DQA1*04:01/DQB1*04:01	0	89	1655	2686
HLA-DQA1*04:01/DQB1*04:02	0	89	1655	2686
HLA-DQA1*01:01/DQB1*05:01	0	122	807	3501
HLA-DQA1*01:02/DQB1*05:02	0	89	961	3380
HLA-DQA1*01:01/DQB1*05:03	0	7	613	3810
HLA-DQA1*01:03/DQB1*06:01	0	317	2127	1986
HLA-DQA1*01:02/DQB1*06:02	0	366	2007	2057
HLA-DQA1*01:03/DQB1*06:02	0	503	2016	1911
HLA-DQA1*01:02/DQB1*06:03	0	0	524	3906
HLA-DQA1*01:03/DQB1*06:03	0	19	604	3807
HLA-DQA1*01:02/DQB1*06:08	0	7	898	3525
HLA-DQA1*01:02/DQB1*06:09	0	0	16	4414
HLA-DQA1*01:02/DQB1*06:10	0	10	1426	2994
HLA-DQA1*01:02/DQB1*06:11	0	184	1673	2573
HLA-DQA1*01:03/DQB1*06:11	0	358	1823	2249
HLA-DQA1*01:02/DQB1*06:14	0	4	766	3660

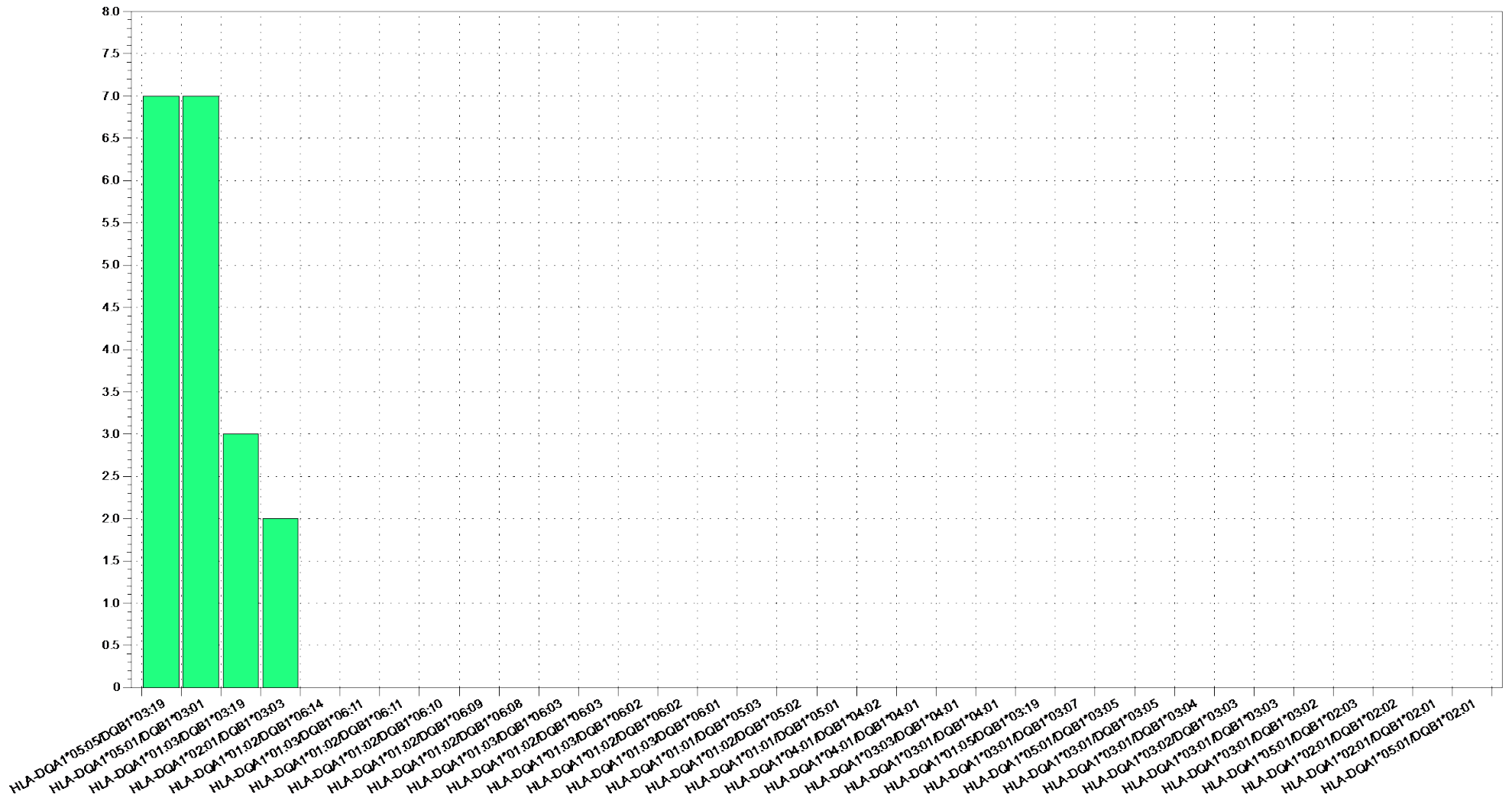
Allele combinations are ordered alphabetically.

General binding prediction tendencies for *HLA-DQA1/DQB1*



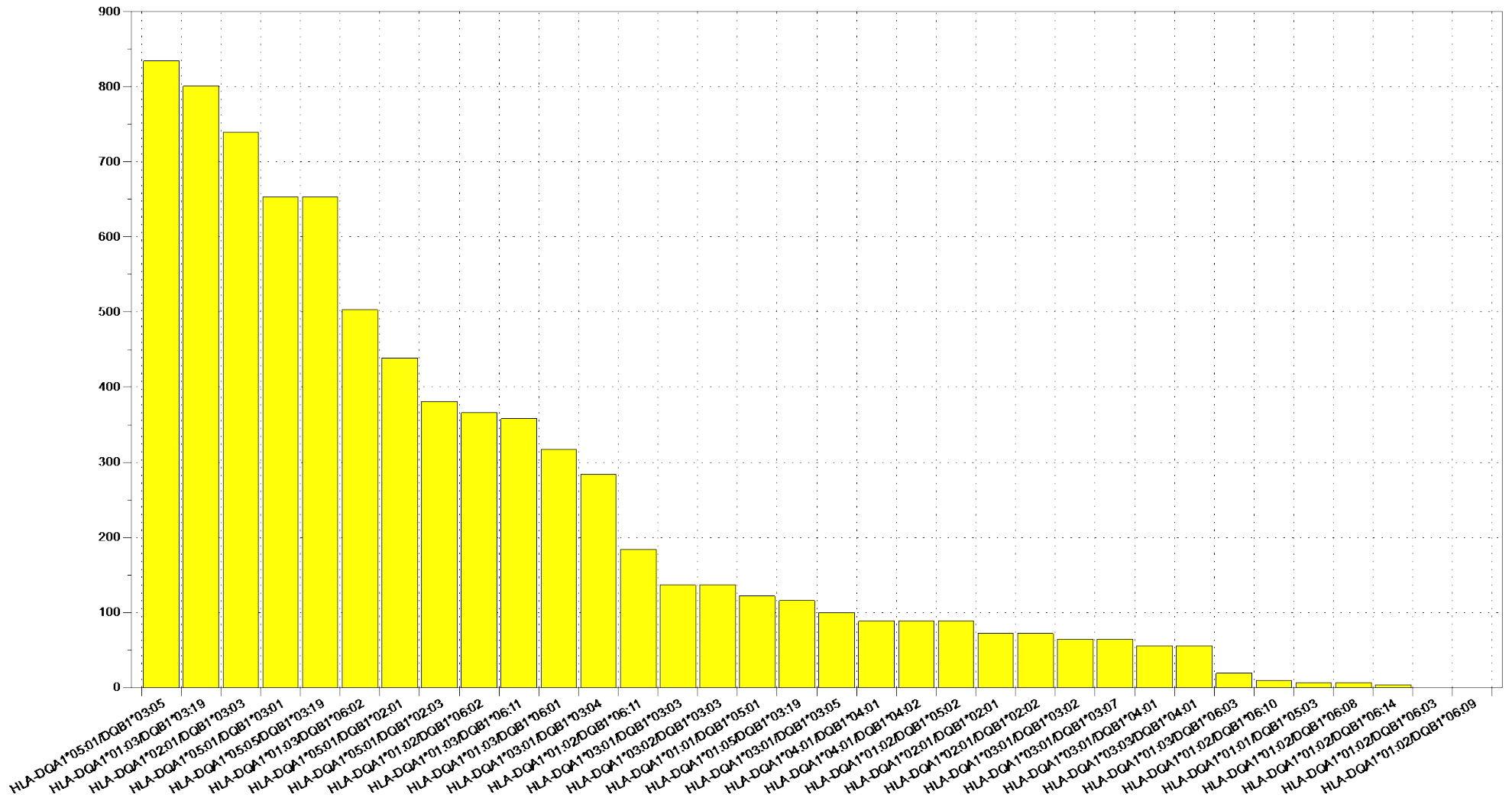
Allele combinations are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 1000$ nM) and weak (1000 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-DQA1/-DQB1 alleles ordered by number of presented peptides with strong binding prediction



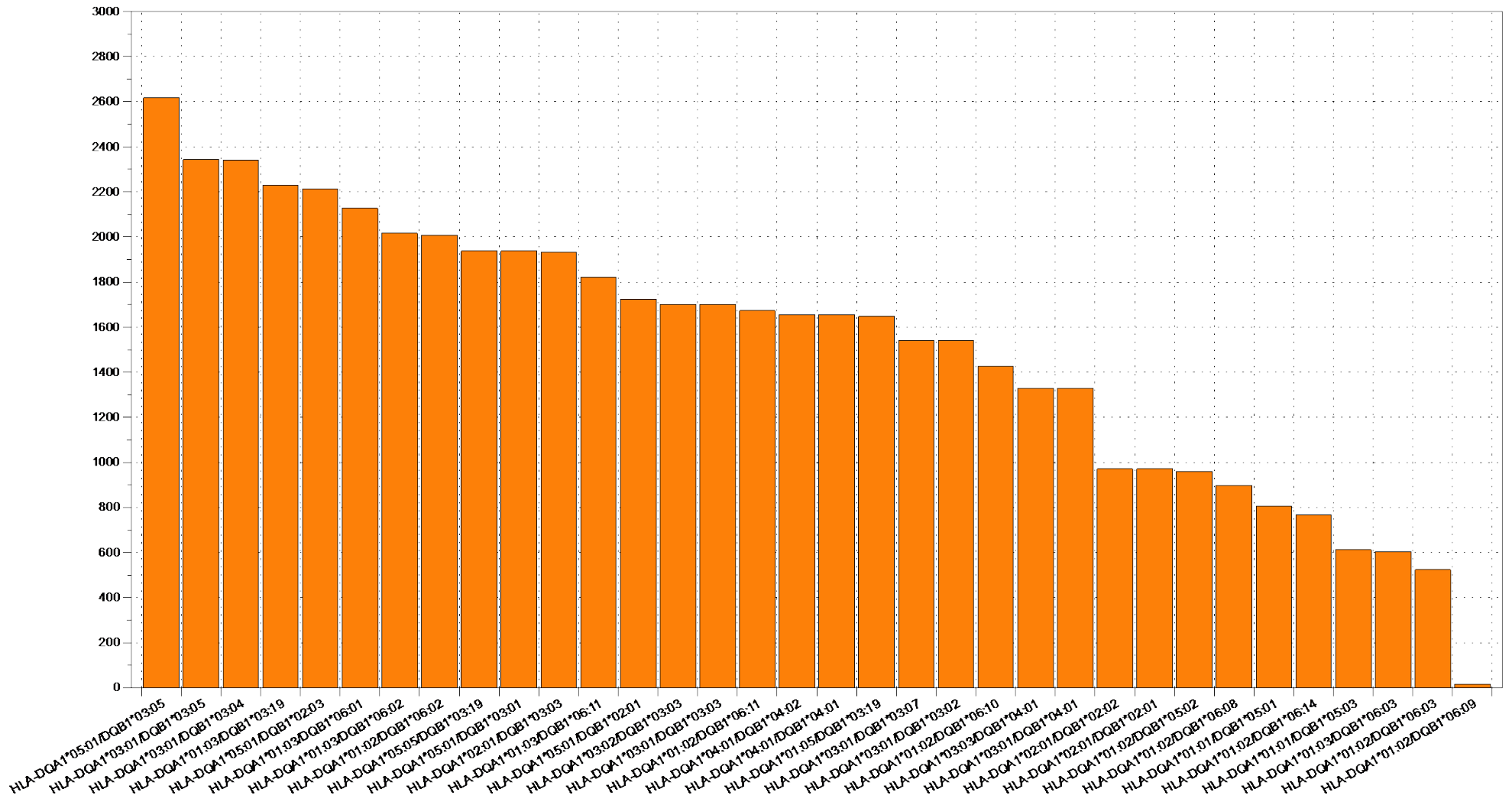
Allele combinations are ordered on the x-axis by their strong (IC₅₀ ≤ 50 nM) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-DQA1/-DQB1 alleles ordered by number of presented peptides with regular binding prediction



Allele combinations are ordered on the x-axis by their regular ($50 \text{ nM} < IC_{50} \leq 1000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-DQA1/DQB1 alleles ordered by number of presented peptides with weak binding prediction



Allele combinations are ordered on the x-axis by their weak ($1000 \text{ nM} < IC_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.