

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 2

Extended results for the binding predictions for SARS-CoV-1

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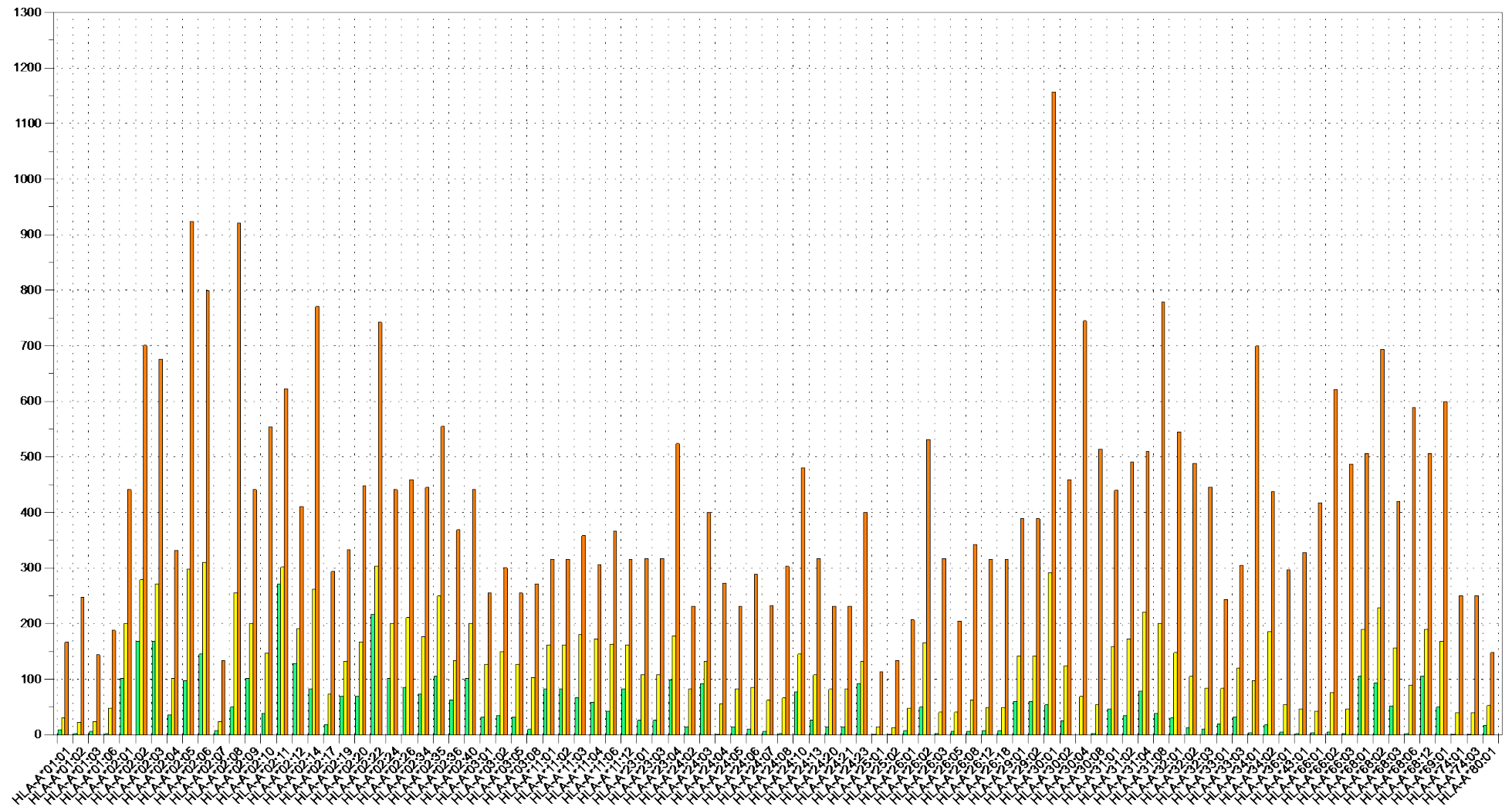
Total number of peptides with strong, regular and weak binding predictions for *HLA-A*

	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	9	31	167	6858
HLA-A*01:02	2	22	248	6793
HLA-A*01:03	6	24	144	6891
HLA-A*01:06	2	48	188	6827
HLA-A*02:01	102	201	441	6321
HLA-A*02:02	169	279	701	5916
HLA-A*02:03	168	272	676	5949
HLA-A*02:04	36	102	332	6595
HLA-A*02:05	98	299	924	5744
HLA-A*02:06	145	311	799	5810
HLA-A*02:07	8	24	134	6899
HLA-A*02:08	50	255	921	5839
HLA-A*02:09	102	201	441	6321
HLA-A*02:10	39	147	554	6325
HLA-A*02:11	271	302	623	5869
HLA-A*02:12	128	191	411	6335
HLA-A*02:14	82	262	771	5950
HLA-A*02:17	18	73	294	6680
HLA-A*02:19	70	133	333	6529
HLA-A*02:20	69	167	448	6381
HLA-A*02:22	217	304	743	5801
HLA-A*02:24	102	201	441	6321
HLA-A*02:26	86	211	459	6309
HLA-A*02:34	73	177	445	6370
HLA-A*02:35	105	250	555	6155
HLA-A*02:36	63	134	369	6499
HLA-A*02:40	102	201	441	6321
HLA-A*03:01	32	127	255	6651
HLA-A*03:02	35	149	301	6580
HLA-A*03:05	32	127	255	6651
HLA-A*03:08	10	103	272	6680
HLA-A*11:01	83	162	316	6504
HLA-A*11:02	83	162	316	6504
HLA-A*11:03	66	181	358	6460
HLA-A*11:04	58	173	307	6527
HLA-A*11:06	43	163	366	6493
HLA-A*11:12	83	162	316	6504
HLA-A*23:01	26	108	317	6614
HLA-A*23:03	26	108	317	6614
HLA-A*23:04	99	178	524	6264
HLA-A*24:02	15	82	232	6736
HLA-A*24:03	92	132	400	6441
HLA-A*24:04	1	56	273	6735
HLA-A*24:05	15	82	232	6736
HLA-A*24:06	11	86	289	6679
HLA-A*24:07	7	62	233	6763
HLA-A*24:08	2	66	303	6694
HLA-A*24:10	78	145	481	6361
HLA-A*24:13	26	108	317	6614
HLA-A*24:20	15	82	232	6736
HLA-A*24:21	15	82	232	6736
HLA-A*24:23	92	132	400	6441
HLA-A*25:01	1	14	114	6936
HLA-A*25:02	1	13	134	6917
HLA-A*26:01	8	48	207	6802
HLA-A*26:02	50	166	532	6317
HLA-A*26:03	2	41	317	6705
HLA-A*26:05	7	41	205	6812
HLA-A*26:08	6	63	343	6653
HLA-A*26:12	8	49	316	6692
HLA-A*26:18	8	49	316	6692
HLA-A*29:01	60	142	389	6474

	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	60	142	389	6474
HLA-A*30:01	54	292	1157	5562
HLA-A*30:02	25	125	459	6456
HLA-A*30:04	0	69	745	6251
HLA-A*30:08	2	54	514	6495
HLA-A*31:01	47	159	440	6419
HLA-A*31:02	35	173	491	6366
HLA-A*31:04	79	220	510	6256
HLA-A*31:08	39	200	779	6047
HLA-A*32:01	30	148	545	6342
HLA-A*32:02	13	105	489	6458
HLA-A*32:03	11	84	446	6524
HLA-A*33:01	20	84	244	6717
HLA-A*33:03	32	120	305	6608
HLA-A*34:01	4	98	700	6263
HLA-A*34:02	18	186	438	6423
HLA-A*36:01	5	54	297	6709
HLA-A*43:01	2	46	328	6689
HLA-A*66:01	4	43	418	6600
HLA-A*66:02	5	76	621	6363
HLA-A*66:03	2	47	487	6529
HLA-A*68:01	106	190	506	6263
HLA-A*68:02	93	229	694	6049
HLA-A*68:03	52	156	420	6437
HLA-A*68:06	2	90	589	6384
HLA-A*68:12	106	190	506	6263
HLA-A*69:01	50	169	600	6246
HLA-A*74:01	1	40	250	6774
HLA-A*74:03	1	40	250	6774
HLA-A*80:01	17	53	148	6847

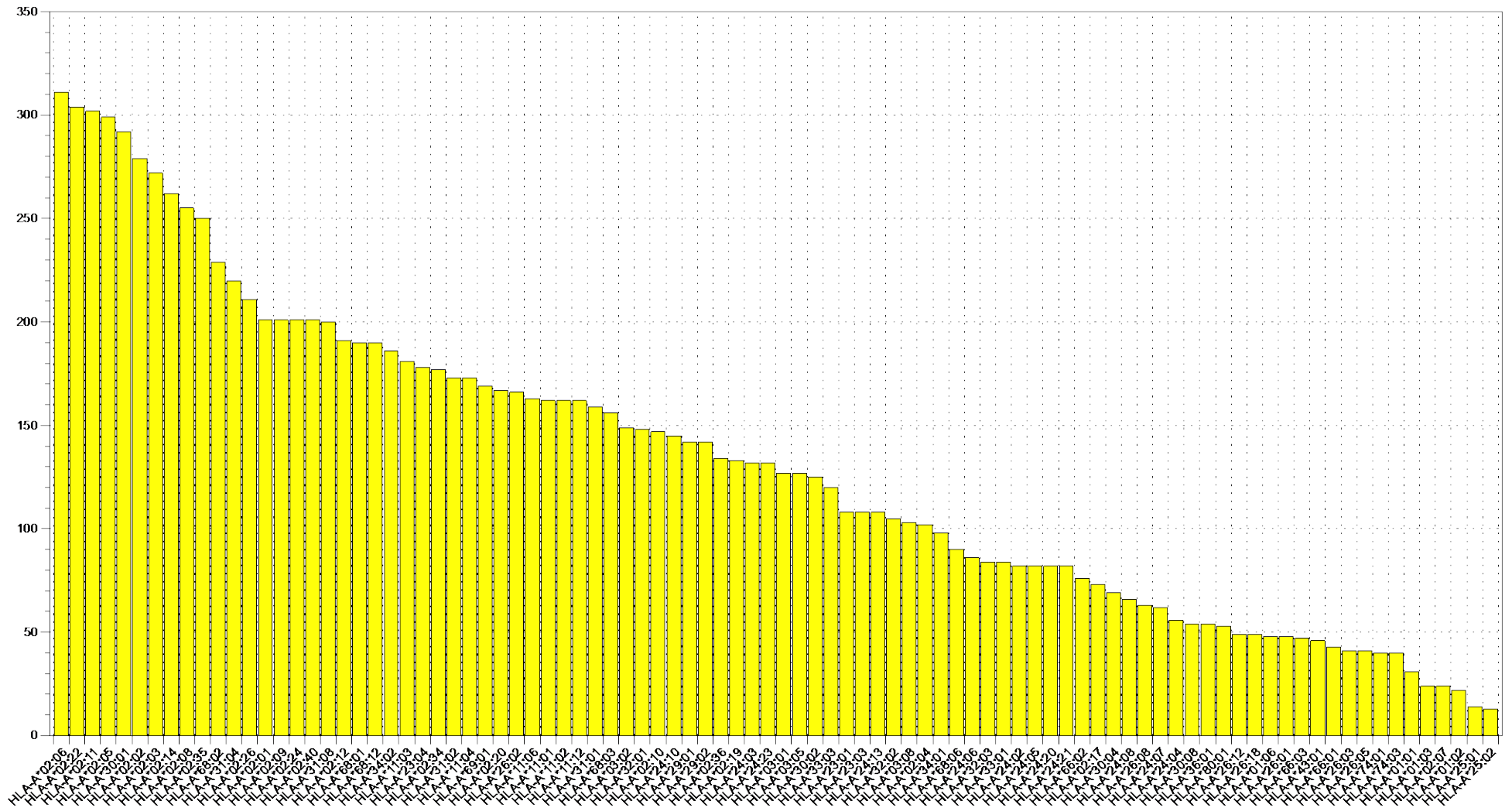
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-A*



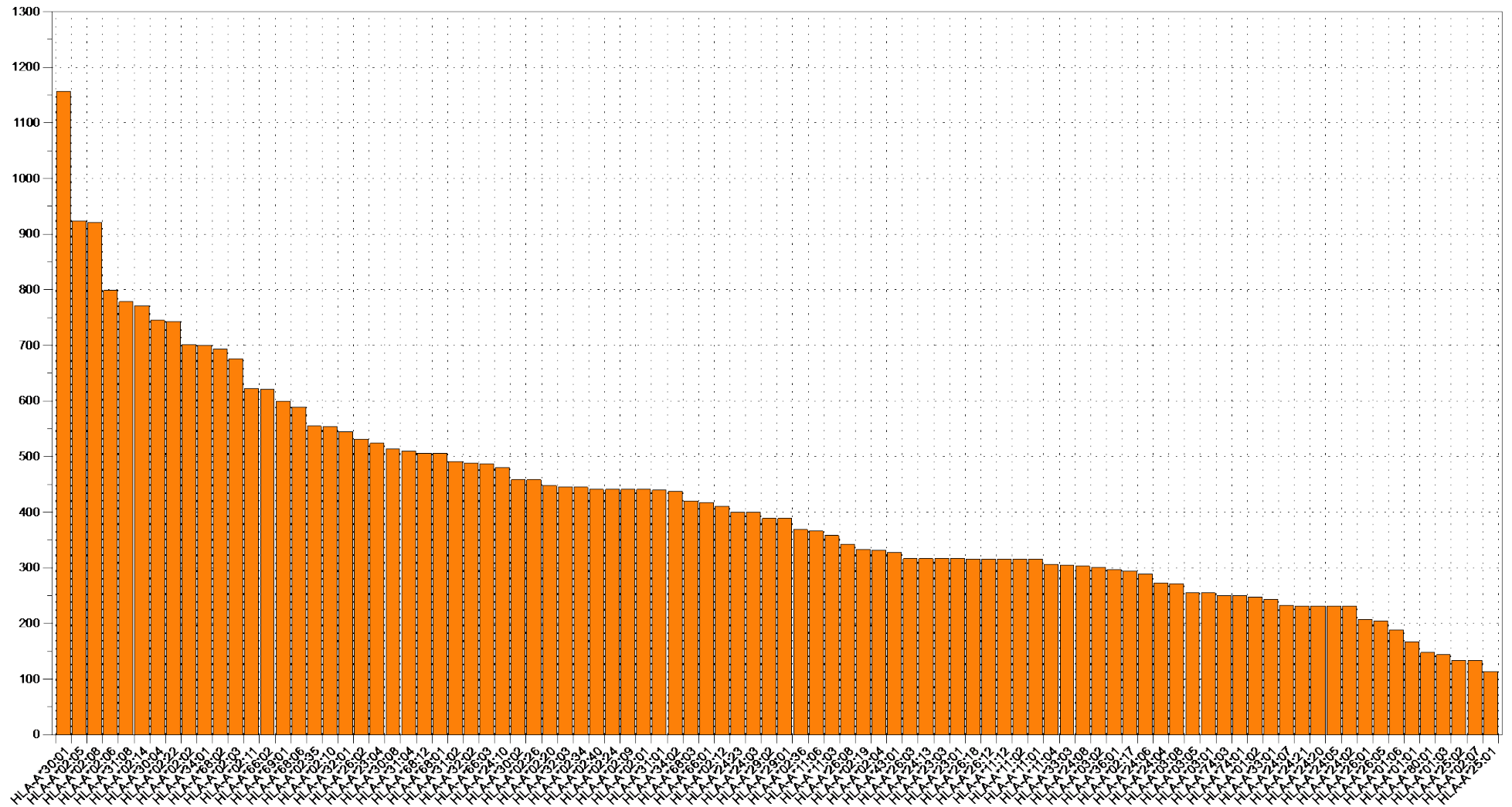
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular ($50 \text{ nM} < IC_{50} \leq 500$ nM) and weak ($500 \text{ nM} < IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-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*

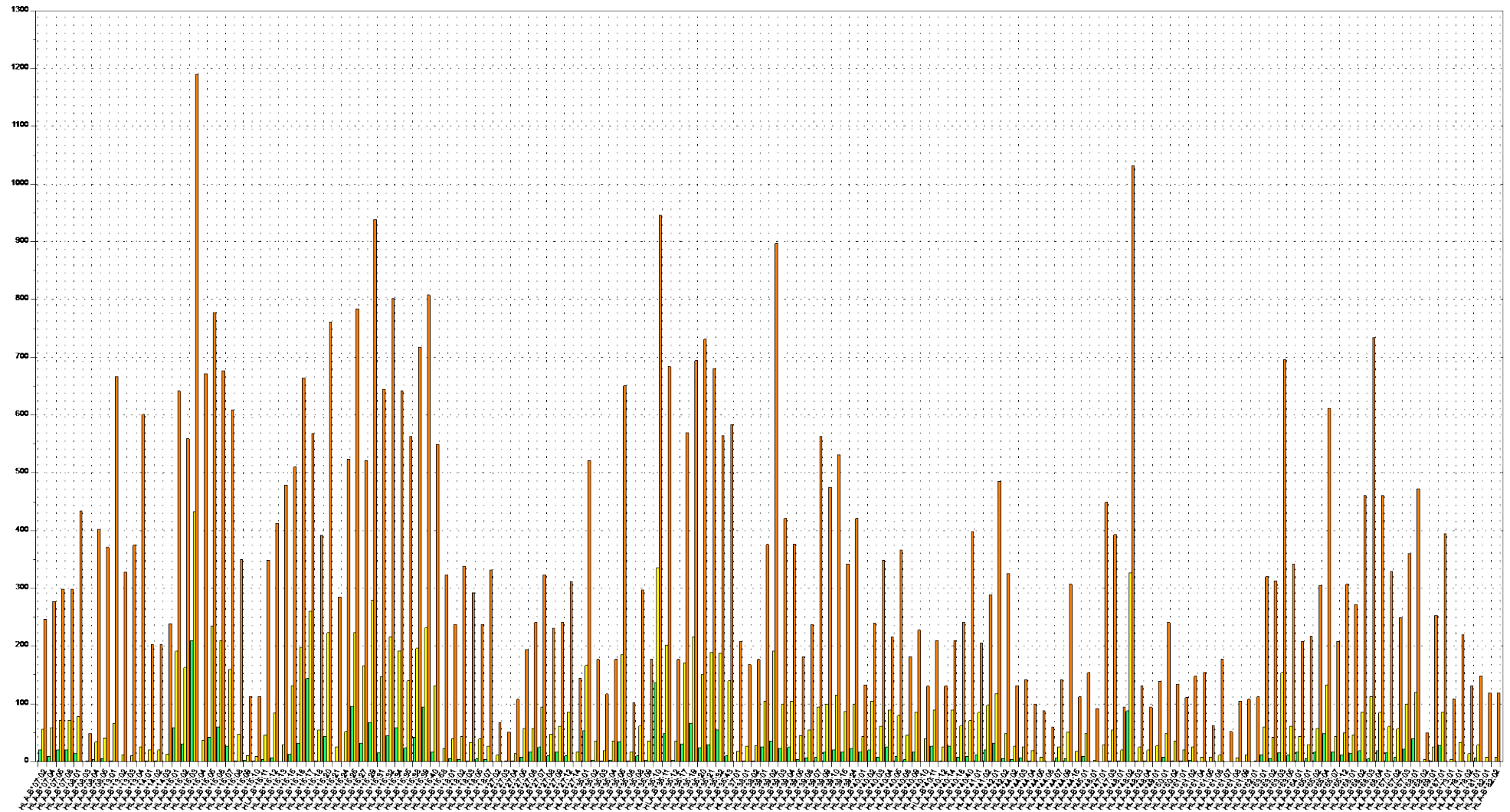
	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-B*07:02	20	56	247	6742
HLA-B*07:04	9	59	277	6720
HLA-B*07:05	21	71	299	6674
HLA-B*07:06	21	71	299	6674
HLA-B*08:01	14	78	434	6539
HLA-B*08:03	0	2	49	7014
HLA-B*08:04	4	34	402	6625
HLA-B*08:05	5	41	371	6648
HLA-B*13:01	2	66	666	6331
HLA-B*13:02	0	12	328	6725
HLA-B*13:03	0	10	375	6680
HLA-B*13:04	0	25	601	6439
HLA-B*14:01	1	20	203	6841
HLA-B*14:02	1	20	203	6841
HLA-B*14:03	0	13	239	6813
HLA-B*15:01	59	191	642	6173
HLA-B*15:02	31	163	559	6312
HLA-B*15:03	209	433	1190	5233
HLA-B*15:04	0	37	672	6356
HLA-B*15:05	42	235	778	6010
HLA-B*15:06	60	209	677	6119
HLA-B*15:07	27	160	609	6269
HLA-B*15:08	2	47	350	6666
HLA-B*15:09	3	10	113	6939
HLA-B*15:10	2	9	113	6941
HLA-B*15:11	4	46	348	6667
HLA-B*15:12	6	84	413	6562
HLA-B*15:13	0	30	479	6556
HLA-B*15:15	13	132	510	6410
HLA-B*15:16	32	198	664	6171
HLA-B*15:17	144	261	568	6092
HLA-B*15:18	2	55	392	6616
HLA-B*15:20	44	223	761	6037
HLA-B*15:21	0	26	285	6754
HLA-B*15:24	0	52	524	6489
HLA-B*15:25	96	223	784	5962
HLA-B*15:27	32	166	521	6346
HLA-B*15:29	68	280	939	5778
HLA-B*15:31	15	147	645	6258
HLA-B*15:32	45	216	802	6002
HLA-B*15:34	59	191	642	6173
HLA-B*15:35	24	140	563	6338
HLA-B*15:38	42	196	718	6109
HLA-B*15:39	95	232	808	5930
HLA-B*15:40	17	132	549	6367
HLA-B*15:58	0	23	323	6719
HLA-B*18:01	5	39	238	6783
HLA-B*18:02	4	44	339	6678
HLA-B*18:03	2	33	292	6738
HLA-B*18:05	5	39	238	6783
HLA-B*18:07	4	27	332	6702
HLA-B*27:02	0	11	68	6986
HLA-B*27:03	0	2	51	7012
HLA-B*27:04	2	14	108	6941
HLA-B*27:05	8	57	194	6806
HLA-B*27:06	17	58	241	6749
HLA-B*27:07	25	94	323	6623
HLA-B*27:08	10	47	231	6777
HLA-B*27:09	17	61	241	6746
HLA-B*27:12	10	86	311	6658
HLA-B*27:14	0	17	144	6904
HLA-B*35:01	54	167	521	6323

	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	3	36	177	6849
HLA-B*35:03	2	19	117	6927
HLA-B*35:04	3	36	177	6849
HLA-B*35:05	35	185	651	6194
HLA-B*35:06	1	16	102	6946
HLA-B*35:08	10	62	297	6696
HLA-B*35:09	3	36	177	6849
HLA-B*35:10	137	336	946	5646
HLA-B*35:11	48	202	684	6131
HLA-B*35:12	3	36	177	6849
HLA-B*35:17	31	171	570	6293
HLA-B*35:19	67	216	694	6088
HLA-B*35:20	24	151	731	6159
HLA-B*35:21	29	189	681	6166
HLA-B*35:32	55	188	564	6258
HLA-B*35:43	10	140	584	6331
HLA-B*37:01	0	18	208	6839
HLA-B*38:01	2	27	168	6868
HLA-B*38:02	2	28	177	6858
HLA-B*39:01	25	105	376	6559
HLA-B*39:02	36	191	897	5941
HLA-B*39:03	23	100	421	6521
HLA-B*39:04	25	105	376	6559
HLA-B*39:05	4	45	182	6834
HLA-B*39:06	7	55	237	6766
HLA-B*39:07	8	95	563	6399
HLA-B*39:09	16	100	475	6474
HLA-B*39:10	20	115	531	6399
HLA-B*39:15	17	87	342	6619
HLA-B*39:24	23	100	421	6521
HLA-B*40:01	17	44	133	6871
HLA-B*40:02	20	105	240	6700
HLA-B*40:03	8	61	348	6648
HLA-B*40:04	26	90	216	6733
HLA-B*40:05	9	80	367	6609
HLA-B*40:06	4	46	182	6833
HLA-B*40:09	16	86	228	6735
HLA-B*40:10	0	39	131	6895
HLA-B*40:11	27	90	210	6738
HLA-B*40:12	1	25	131	6908
HLA-B*40:14	27	90	210	6738
HLA-B*40:16	8	62	241	6754
HLA-B*40:40	9	71	398	6587
HLA-B*41:01	12	85	205	6763
HLA-B*41:02	21	98	289	6657
HLA-B*42:01	32	118	485	6430
HLA-B*42:02	5	49	326	6685
HLA-B*44:02	4	27	132	6902
HLA-B*44:03	6	26	142	6891
HLA-B*44:04	1	19	100	6945
HLA-B*44:05	0	8	88	6969
HLA-B*44:06	0	0	60	7005
HLA-B*44:07	6	26	142	6891
HLA-B*44:09	5	51	307	6702
HLA-B*44:15	0	18	112	6935
HLA-B*45:01	9	49	154	6853
HLA-B*46:01	0	3	92	6970
HLA-B*47:01	0	30	449	6586
HLA-B*47:03	2	55	393	6615
HLA-B*48:01	1	20	94	6950
HLA-B*48:02	88	327	1031	5619
HLA-B*48:03	1	25	131	6908
HLA-B*48:04	1	20	94	6950
HLA-B*49:01	0	28	139	6898
HLA-B*50:01	8	49	241	6767

	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	2	36	134	6893
HLA-B*51:01	2	20	111	6932
HLA-B*51:02	3	26	148	6888
HLA-B*51:04	0	8	155	6902
HLA-B*51:05	0	8	62	6995
HLA-B*51:06	0	11	178	6876
HLA-B*51:07	0	0	52	7013
HLA-B*51:08	0	7	105	6953
HLA-B*51:09	0	12	108	6945
HLA-B*52:01	0	2	112	6951
HLA-B*53:01	12	60	320	6673
HLA-B*53:02	5	42	313	6705
HLA-B*53:03	15	154	696	6200
HLA-B*53:05	11	61	342	6651
HLA-B*54:01	16	44	208	6797
HLA-B*55:01	5	30	217	6813
HLA-B*55:02	16	58	305	6686
HLA-B*55:04	48	133	612	6272
HLA-B*55:07	16	44	208	6797
HLA-B*55:12	12	50	307	6696
HLA-B*56:01	14	46	272	6733
HLA-B*56:02	19	85	461	6500
HLA-B*56:03	5	113	734	6213
HLA-B*56:04	19	85	461	6500
HLA-B*57:01	15	61	329	6660
HLA-B*57:02	8	57	249	6751
HLA-B*57:03	22	99	360	6584
HLA-B*58:01	40	120	473	6432
HLA-B*58:02	0	4	50	7011
HLA-B*59:01	1	26	253	6785
HLA-B*67:01	28	86	394	6557
HLA-B*73:01	0	4	109	6952
HLA-B*78:01	0	33	219	6813
HLA-B*78:02	0	14	132	6919
HLA-B*81:01	6	29	148	6882
HLA-B*82:01	0	8	119	6938
HLA-B*82:02	0	8	119	6938

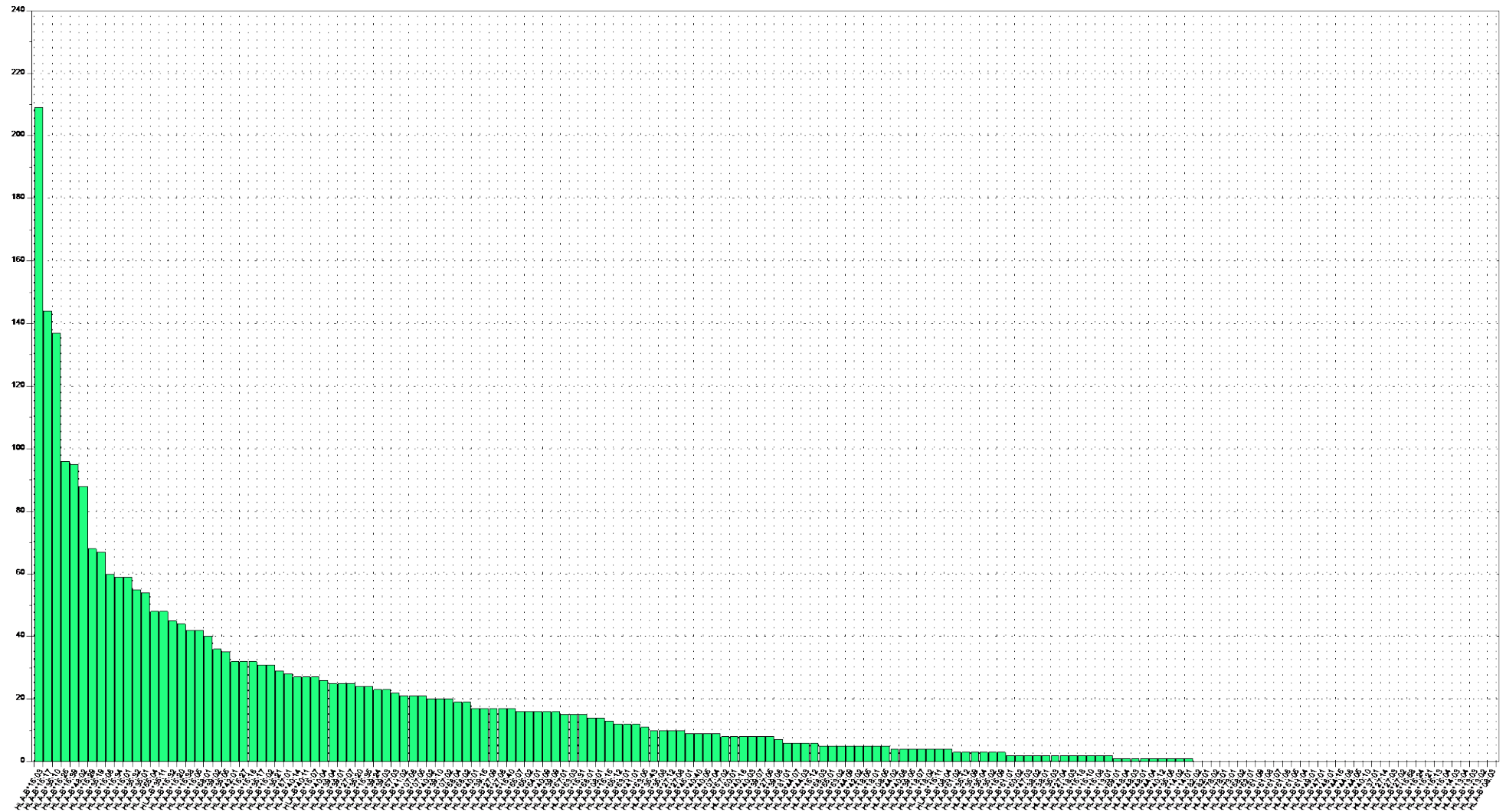
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-B*



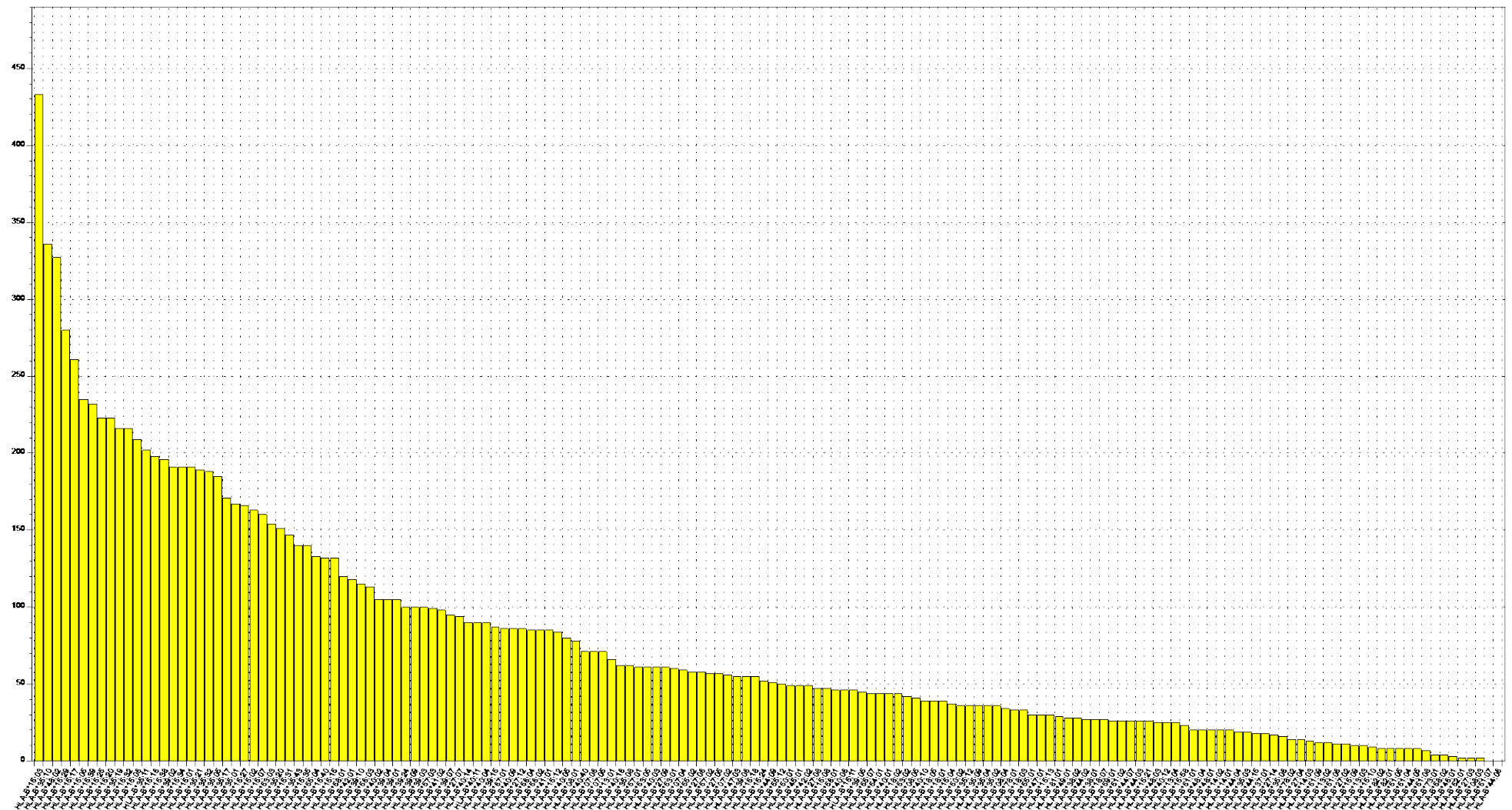
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 500$ nM) and weak (500 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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



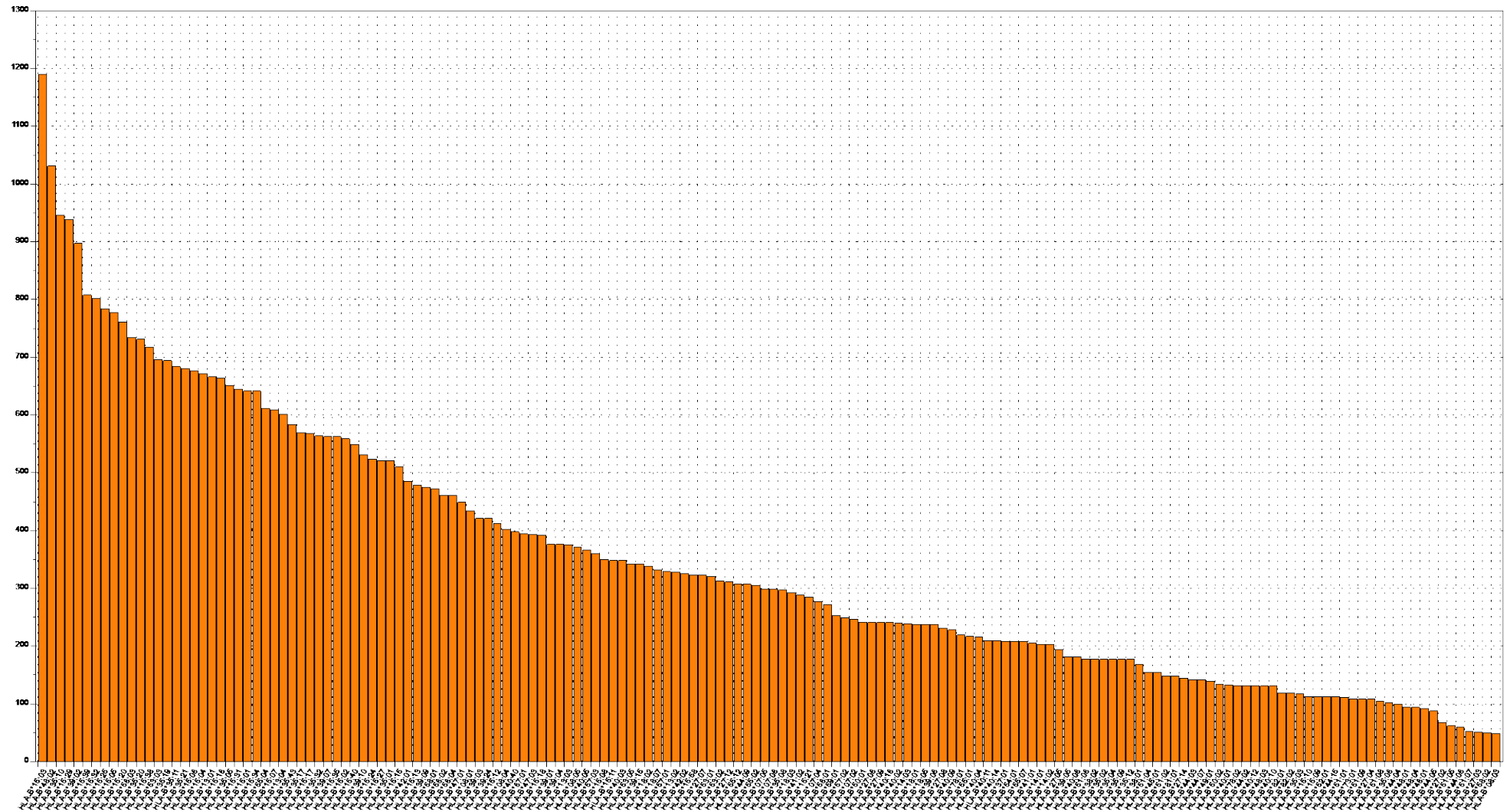
Alleles are ordered on the x-axis by their strong ($IC_{50} \leq 50$ nM) binding prediction and the number of peptides presented are displayed on the y-axis.

HLA-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



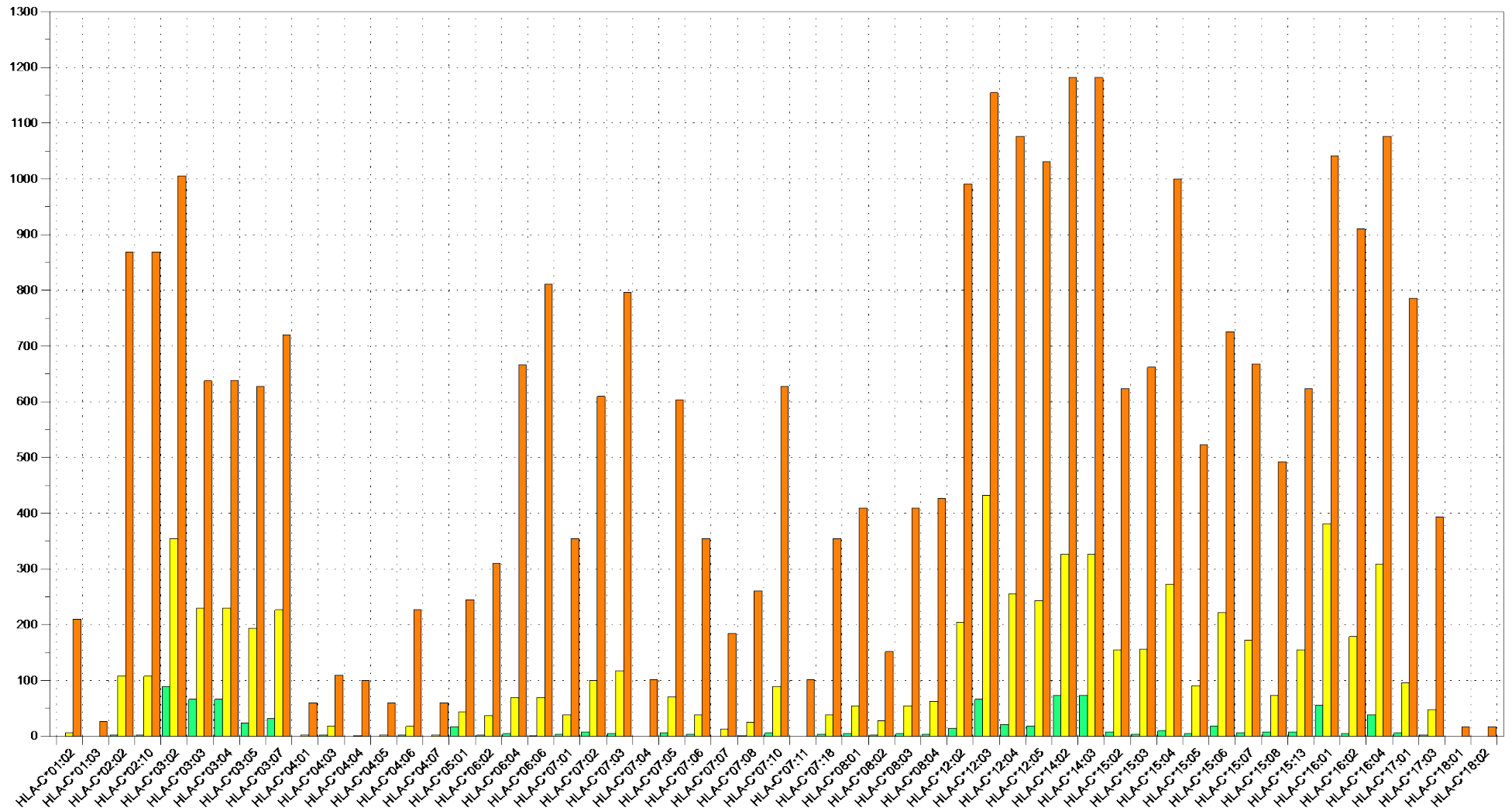
Alleles are ordered on the x-axis by their weak ($500 \text{ nM} < IC_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

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	6	210	6849
HLA-C*01:03	0	0	26	7039
HLA-C*02:02	3	108	869	6085
HLA-C*02:10	3	108	869	6085
HLA-C*03:02	89	355	1006	5615
HLA-C*03:03	66	230	638	6131
HLA-C*03:04	66	230	638	6131
HLA-C*03:05	24	194	628	6219
HLA-C*03:07	32	227	720	6086
HLA-C*04:01	0	3	60	7002
HLA-C*04:03	3	19	110	6933
HLA-C*04:04	0	1	100	6964
HLA-C*04:05	0	3	60	7002
HLA-C*04:06	3	18	227	6817
HLA-C*04:07	0	3	60	7002
HLA-C*05:01	17	44	245	6759
HLA-C*06:02	2	37	311	6715
HLA-C*06:04	5	70	666	6324
HLA-C*06:06	1	70	811	6183
HLA-C*07:01	4	39	355	6667
HLA-C*07:02	8	100	610	6347
HLA-C*07:03	5	117	797	6146
HLA-C*07:04	0	0	101	6964
HLA-C*07:05	7	71	604	6383
HLA-C*07:06	4	39	355	6667
HLA-C*07:07	0	13	185	6867
HLA-C*07:08	1	25	261	6778
HLA-C*07:10	6	90	628	6341
HLA-C*07:11	0	0	101	6964
HLA-C*07:18	4	39	355	6667
HLA-C*08:01	5	55	410	6595
HLA-C*08:02	2	28	152	6883
HLA-C*08:03	5	55	410	6595
HLA-C*08:04	4	63	427	6571
HLA-C*12:02	15	204	991	5855
HLA-C*12:03	66	432	1155	5412
HLA-C*12:04	21	256	1077	5711
HLA-C*12:05	19	244	1031	5771
HLA-C*14:02	73	327	1182	5483
HLA-C*14:03	73	327	1182	5483
HLA-C*15:02	8	155	624	6278
HLA-C*15:03	4	156	662	6243
HLA-C*15:04	10	273	1000	5782
HLA-C*15:05	5	91	523	6446
HLA-C*15:06	19	222	726	6098
HLA-C*15:07	7	173	668	6217
HLA-C*15:08	8	73	493	6491
HLA-C*15:13	8	155	624	6278
HLA-C*16:01	56	382	1041	5586
HLA-C*16:02	5	179	910	5971
HLA-C*16:04	39	309	1077	5640
HLA-C*17:01	6	96	786	6177
HLA-C*17:03	3	48	393	6621
HLA-C*18:01	0	0	17	7048
HLA-C*18:02	0	0	17	7048

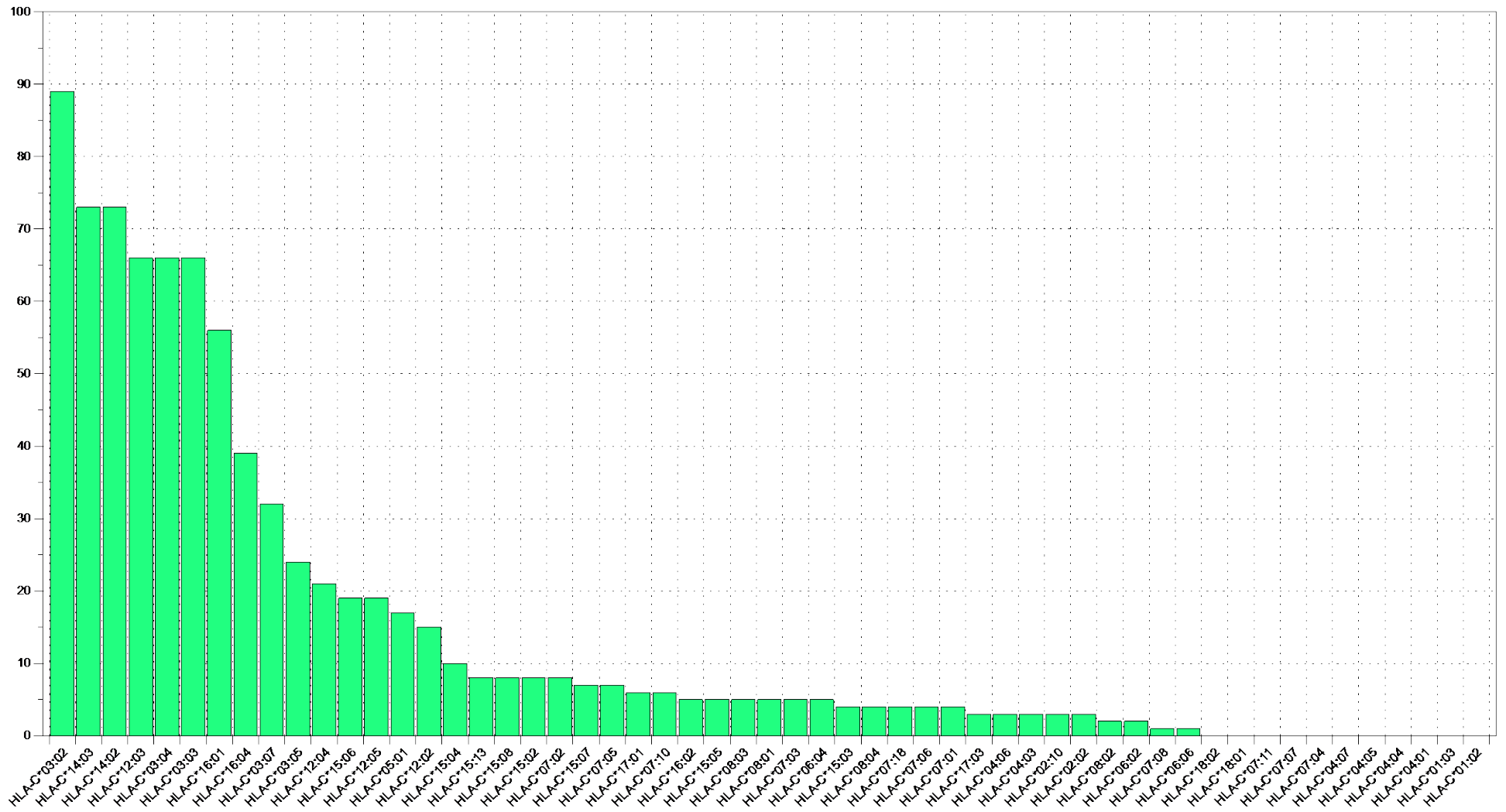
Alleles are ordered alphabetically.

General binding prediction tendencies for HLA-C



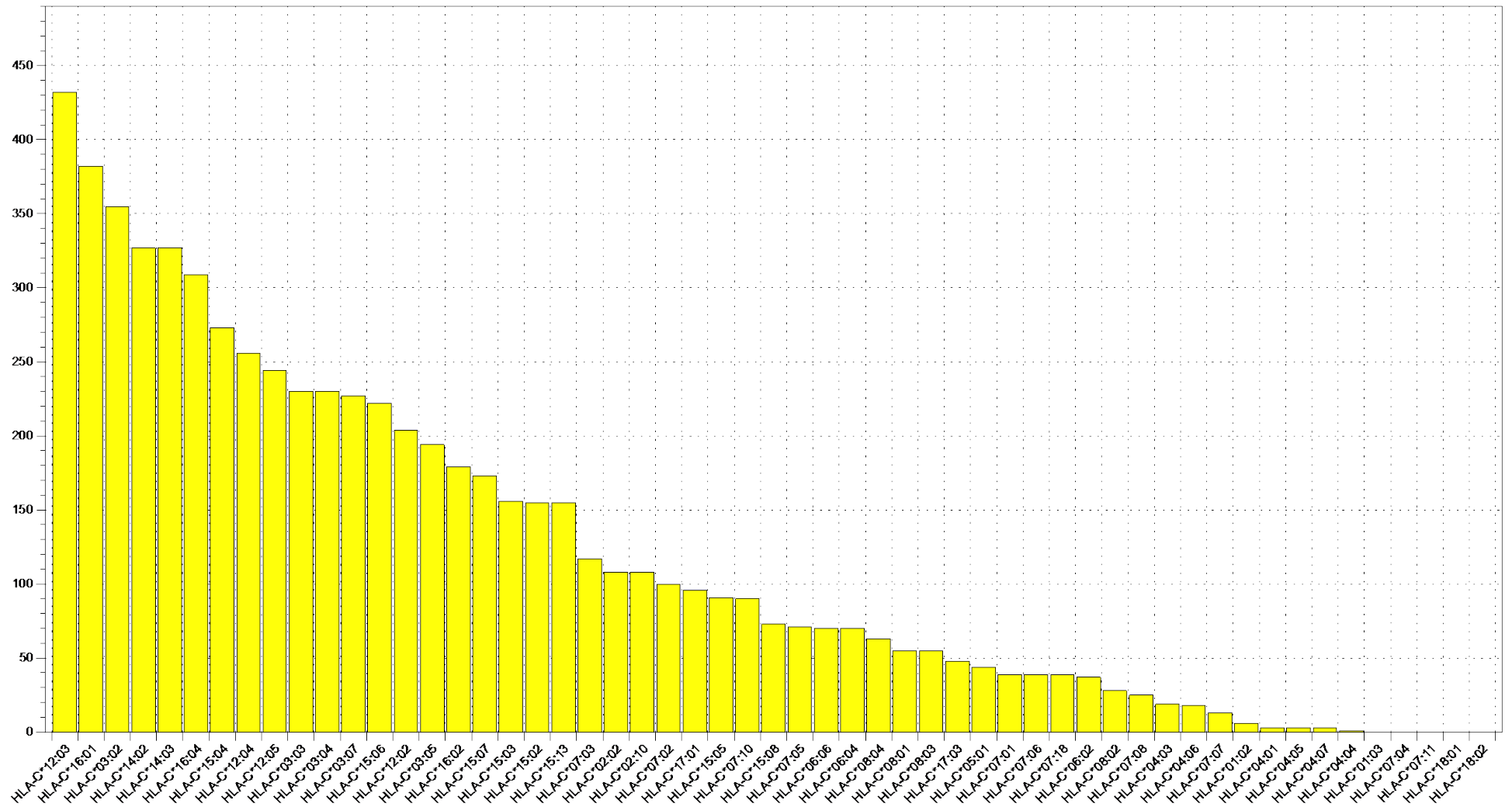
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 500$ nM) and weak (500 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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



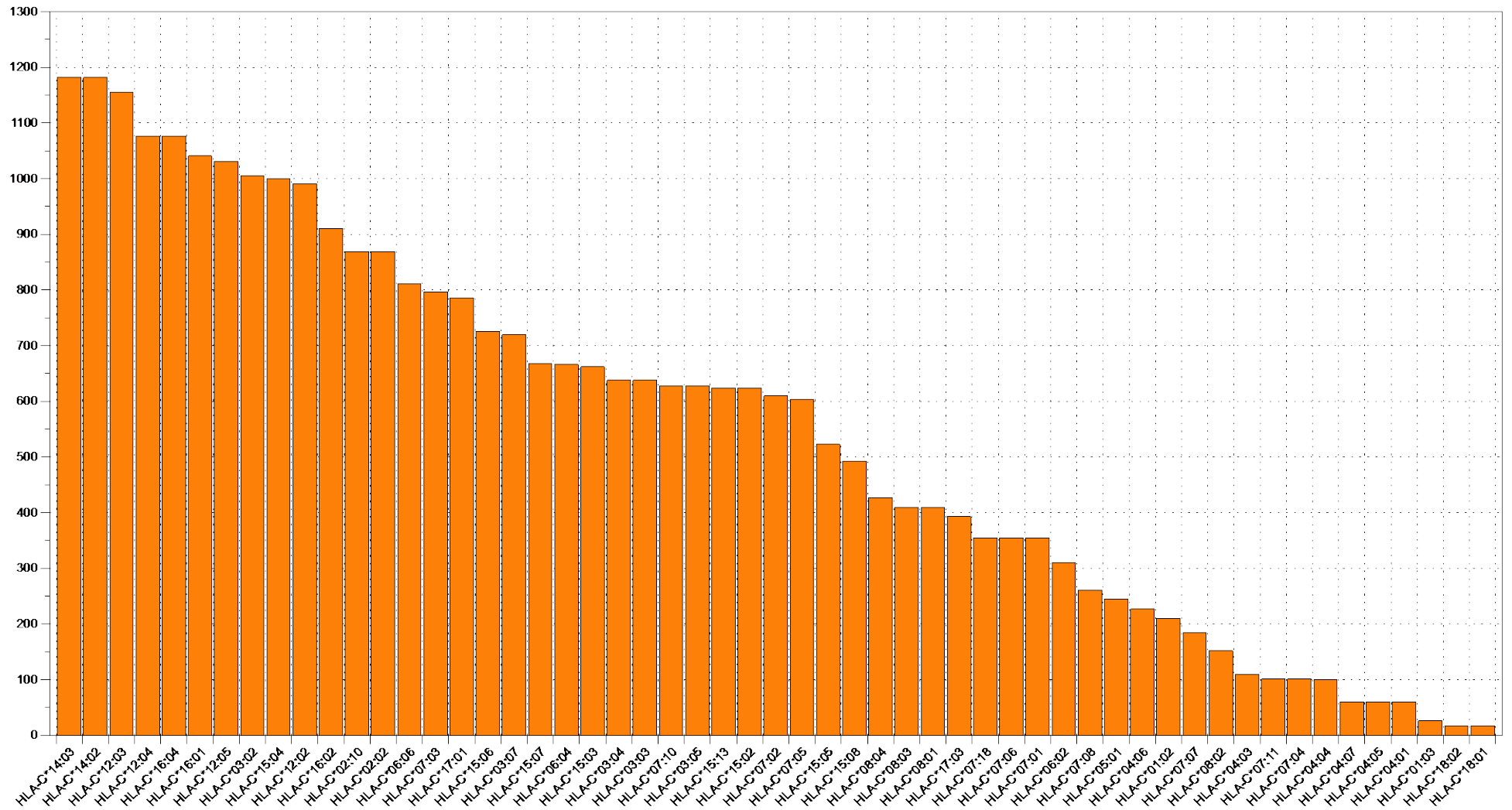
Alleles are ordered on the x-axis by their strong (IC₅₀ ≤ 50 nM) binding prediction and the number of peptides presented are displayed on the y-axis.

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



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

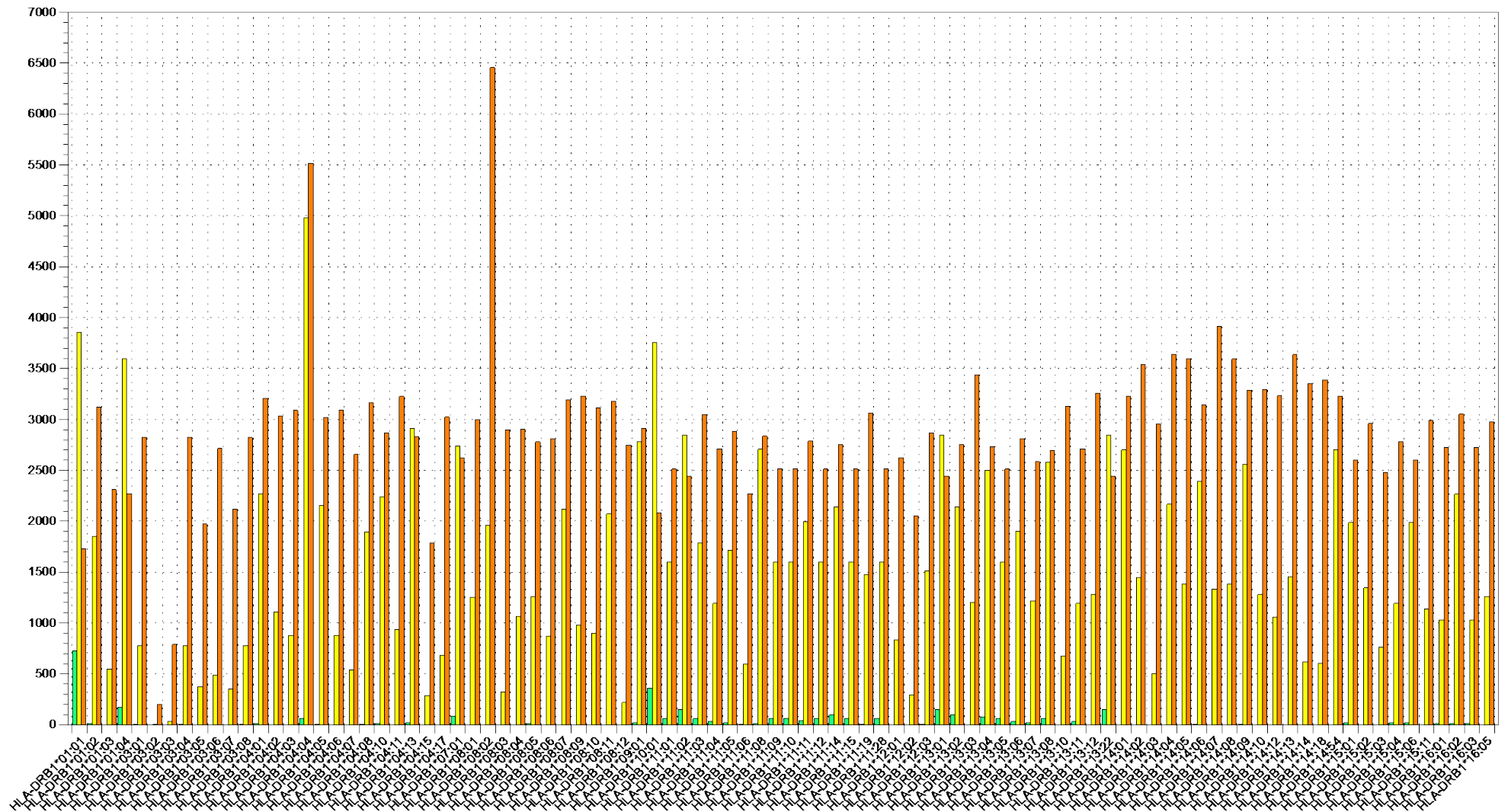
Total number of peptides with strong, regular and weak binding predictions for *HLA-DRB1*

	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	728	3855	1727	751
HLA-DRB1*01:02	13	1849	3124	2075
HLA-DRB1*01:03	0	547	2310	4204
HLA-DRB1*01:04	172	3599	2271	1019
HLA-DRB1*03:01	2	778	2822	3459
HLA-DRB1*03:02	0	2	202	6857
HLA-DRB1*03:03	0	37	790	6234
HLA-DRB1*03:04	2	778	2822	3459
HLA-DRB1*03:05	0	374	1971	4716
HLA-DRB1*03:06	0	486	2716	3859
HLA-DRB1*03:07	0	348	2115	4598
HLA-DRB1*03:08	2	778	2822	3459
HLA-DRB1*04:01	15	2273	3209	1564
HLA-DRB1*04:02	0	1108	3033	2920
HLA-DRB1*04:03	0	878	3090	3093
HLA-DRB1*04:04	32	2490	2758	1781
HLA-DRB1*04:05	6	2153	3016	1886
HLA-DRB1*04:06	0	878	3090	3093
HLA-DRB1*04:07	0	543	2657	3861
HLA-DRB1*04:08	8	1893	3161	1999
HLA-DRB1*04:10	12	2242	2866	1941
HLA-DRB1*04:11	0	939	3226	2896
HLA-DRB1*04:13	20	2911	2829	1301
HLA-DRB1*04:15	0	287	1789	4985
HLA-DRB1*04:17	0	686	3027	3348
HLA-DRB1*07:01	86	2737	2622	1616
HLA-DRB1*08:01	0	1255	3000	2806
HLA-DRB1*08:02	0	981	3229	2851
HLA-DRB1*08:03	0	321	2898	3842
HLA-DRB1*08:04	0	1065	2903	3093
HLA-DRB1*08:05	12	1261	2780	3008
HLA-DRB1*08:06	0	871	2809	3381
HLA-DRB1*08:07	0	2121	3195	1745
HLA-DRB1*08:09	0	981	3229	2851
HLA-DRB1*08:10	0	898	3114	3049
HLA-DRB1*08:11	0	2074	3177	1810
HLA-DRB1*08:12	0	218	2747	4096
HLA-DRB1*09:01	19	2779	2912	1351
HLA-DRB1*10:01	360	3758	2081	862
HLA-DRB1*11:01	65	1602	2513	2881
HLA-DRB1*11:02	151	2850	2443	1617
HLA-DRB1*11:03	60	1784	3051	2166
HLA-DRB1*11:04	31	1192	2712	3126
HLA-DRB1*11:05	17	1715	2884	2445
HLA-DRB1*11:06	2	595	2272	4192
HLA-DRB1*11:08	14	2708	2837	1502
HLA-DRB1*11:09	65	1602	2513	2881
HLA-DRB1*11:10	65	1602	2513	2881
HLA-DRB1*11:11	43	1996	2788	2234
HLA-DRB1*11:12	65	1602	2513	2881
HLA-DRB1*11:14	97	2142	2754	2068
HLA-DRB1*11:15	65	1602	2513	2881
HLA-DRB1*11:19	5	1476	3063	2517
HLA-DRB1*11:28	65	1602	2513	2881
HLA-DRB1*12:01	0	836	2626	3599
HLA-DRB1*12:02	0	296	2052	4713
HLA-DRB1*12:03	6	1515	2867	2673
HLA-DRB1*13:01	151	2850	2443	1617
HLA-DRB1*13:02	97	2142	2754	2068
HLA-DRB1*13:03	0	1199	3439	2423
HLA-DRB1*13:04	80	2503	2734	1744
HLA-DRB1*13:05	65	1602	2513	2881

	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	31	1904	2814	2312
HLA-DRB1*13:07	23	1218	2585	3235
HLA-DRB1*13:08	61	2583	2694	1723
HLA-DRB1*13:10	0	678	3126	3257
HLA-DRB1*13:11	31	1192	2712	3126
HLA-DRB1*13:12	0	1284	3261	2516
HLA-DRB1*13:22	151	2850	2443	1617
HLA-DRB1*14:01	0	2700	3231	1130
HLA-DRB1*14:02	0	1449	3540	2072
HLA-DRB1*14:03	0	501	2955	3605
HLA-DRB1*14:04	0	2168	3643	1250
HLA-DRB1*14:05	0	1386	3596	2079
HLA-DRB1*14:06	4	2394	3145	1518
HLA-DRB1*14:07	0	1334	3916	1811
HLA-DRB1*14:08	0	1386	3596	2079
HLA-DRB1*14:09	5	2561	3290	1205
HLA-DRB1*14:10	0	1281	3293	2487
HLA-DRB1*14:12	0	1061	3233	2767
HLA-DRB1*14:13	0	1456	3636	1969
HLA-DRB1*14:14	0	620	3350	3091
HLA-DRB1*14:18	0	605	3389	3067
HLA-DRB1*14:54	0	2700	3231	1130
HLA-DRB1*15:01	22	1988	2604	2447
HLA-DRB1*15:02	0	1344	2960	2757
HLA-DRB1*15:03	0	761	2478	3822
HLA-DRB1*15:04	19	1194	2780	3068
HLA-DRB1*15:06	22	1988	2604	2447
HLA-DRB1*15:11	0	1140	2994	2927
HLA-DRB1*16:01	10	1032	2722	3297
HLA-DRB1*16:02	14	2267	3053	1727
HLA-DRB1*16:03	10	1032	2722	3297
HLA-DRB1*16:05	0	1262	2976	2823

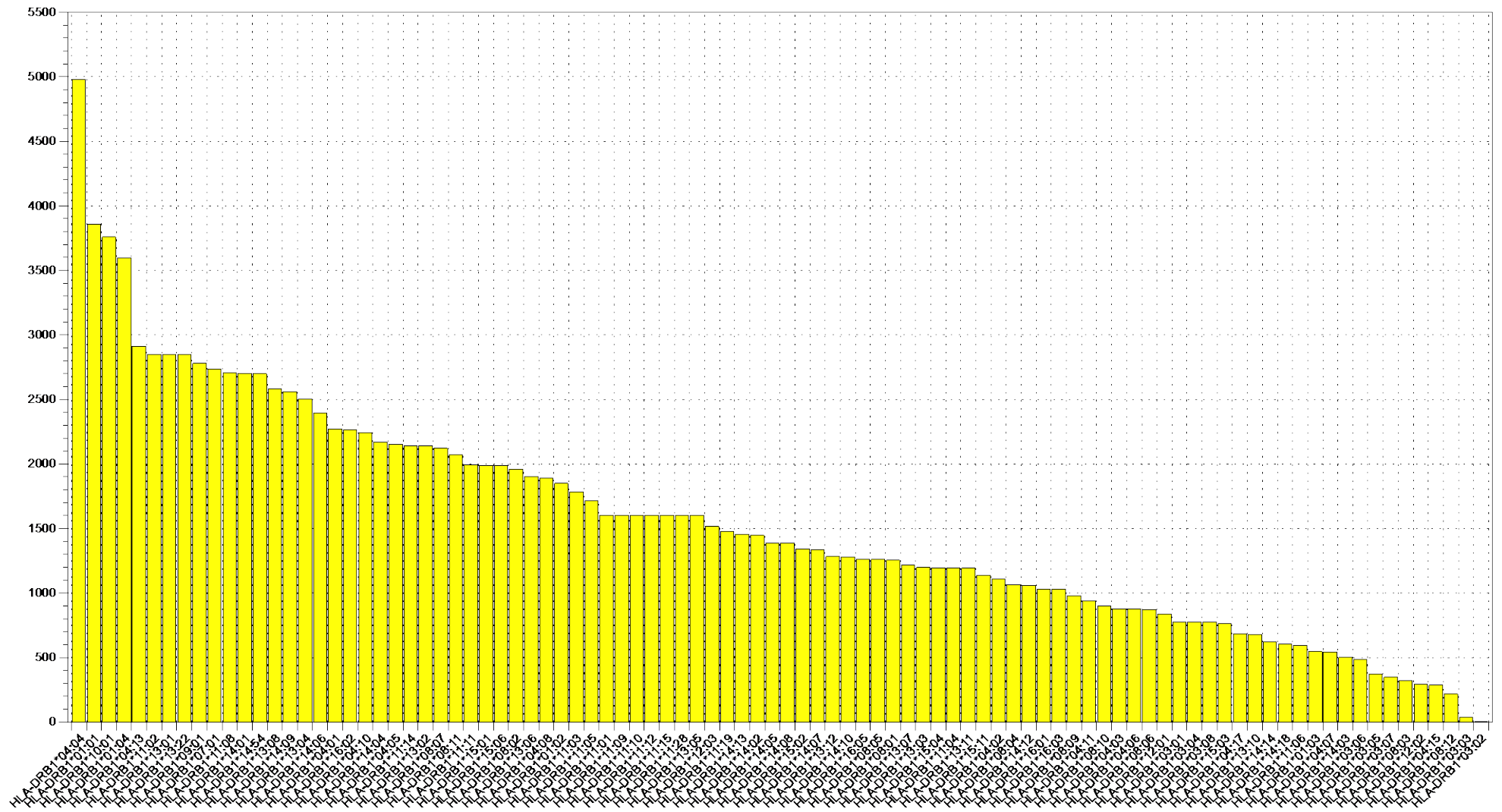
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-DRB1*



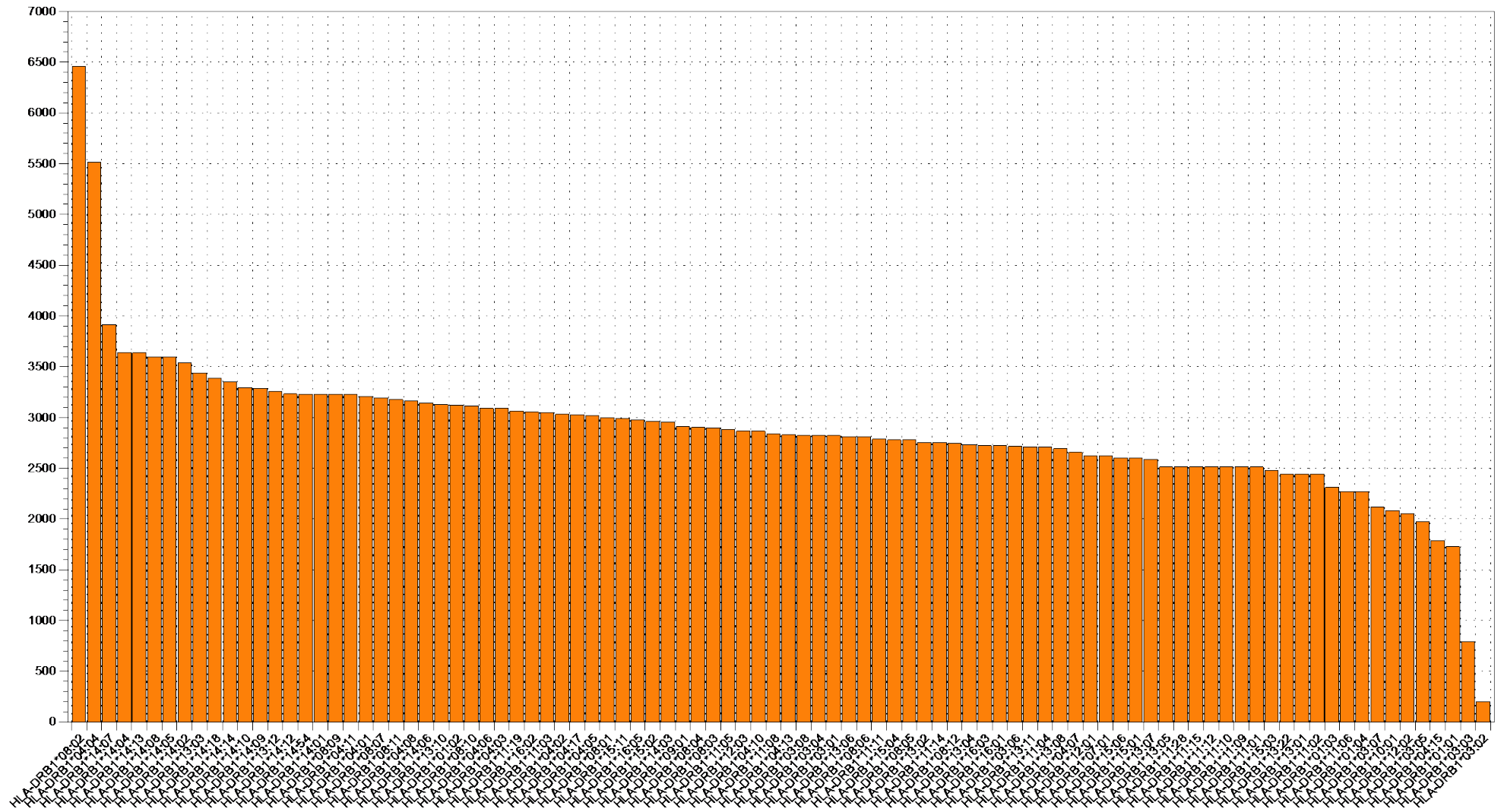
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 1000$ nM) and weak (1000 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

HLA-DRB1 alleles ordered by number of presented peptides with 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.

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



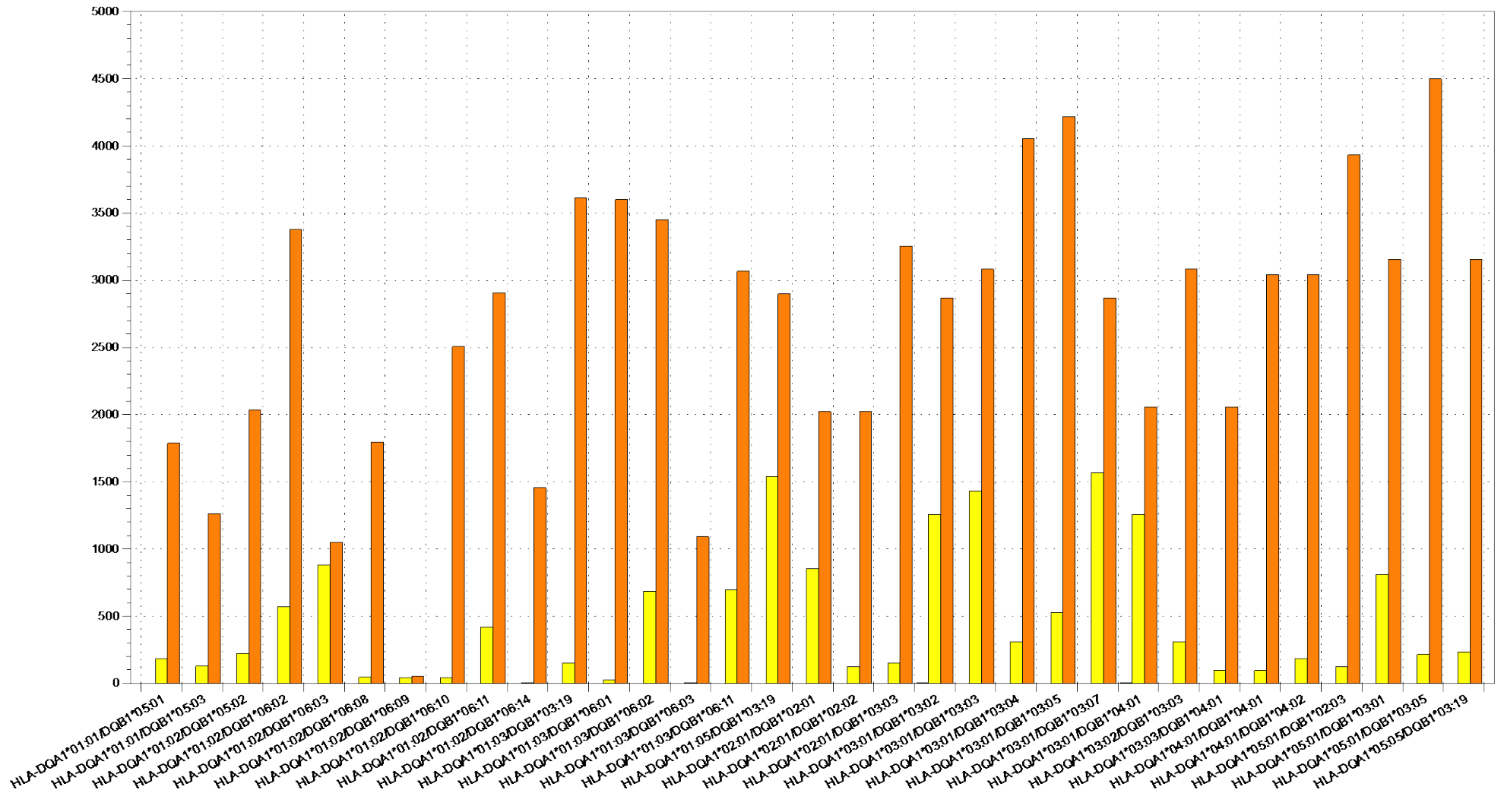
Alleles are ordered on the x-axis by their weak ($1000 \text{ nM} < \text{IC}_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

Total number of peptides with strong, regular and weak binding predictions for *HLA-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*02:01/DQB1*02:01	0	855	2022	4184
HLA-DQA1*02:01/DQB1*02:02	0	125	2022	4914
HLA-DQA1*05:01/DQB1*02:01	0	258	3910	2893
HLA-DQA1*05:01/DQB1*02:03	0	125	3933	3003
HLA-DQA1*05:01/DQB1*03:01	0	811	3156	3094
HLA-DQA1*03:01/DQB1*03:02	4	1256	2866	2935
HLA-DQA1*02:01/DQB1*03:03	0	151	3254	3656
HLA-DQA1*03:01/DQB1*03:03	0	1432	3083	2546
HLA-DQA1*03:02/DQB1*03:03	0	308	3083	3670
HLA-DQA1*03:01/DQB1*03:04	0	308	4052	2701
HLA-DQA1*03:01/DQB1*03:05	0	526	4218	2317
HLA-DQA1*05:01/DQB1*03:05	0	215	4497	2349
HLA-DQA1*03:01/DQB1*03:07	0	1567	2866	2628
HLA-DQA1*01:03/DQB1*03:19	0	151	3613	3297
HLA-DQA1*01:05/DQB1*03:19	0	1539	2897	2625
HLA-DQA1*05:05/DQB1*03:19	0	232	3156	3673
HLA-DQA1*03:01/DQB1*04:01	4	1256	2058	3743
HLA-DQA1*03:03/DQB1*04:01	0	95	2058	4908
HLA-DQA1*04:01/DQB1*04:01	0	95	3041	3925
HLA-DQA1*04:01/DQB1*04:02	0	186	3041	3834
HLA-DQA1*01:01/DQB1*05:01	0	186	1787	5088
HLA-DQA1*01:02/DQB1*05:02	0	224	2034	4803
HLA-DQA1*01:01/DQB1*05:03	0	128	1261	5672
HLA-DQA1*01:03/DQB1*06:01	0	25	3601	3435
HLA-DQA1*01:02/DQB1*06:02	0	570	3380	3111
HLA-DQA1*01:03/DQB1*06:02	0	686	3450	2925
HLA-DQA1*01:02/DQB1*06:03	0	881	1050	5130
HLA-DQA1*01:03/DQB1*06:03	0	3	1092	5966
HLA-DQA1*01:02/DQB1*06:08	0	46	1797	5218
HLA-DQA1*01:02/DQB1*06:09	0	41	53	6967
HLA-DQA1*01:02/DQB1*06:10	0	41	2508	4512
HLA-DQA1*01:02/DQB1*06:11	0	419	2906	3736
HLA-DQA1*01:03/DQB1*06:11	0	696	3066	3299
HLA-DQA1*01:02/DQB1*06:14	0	7	1455	5599

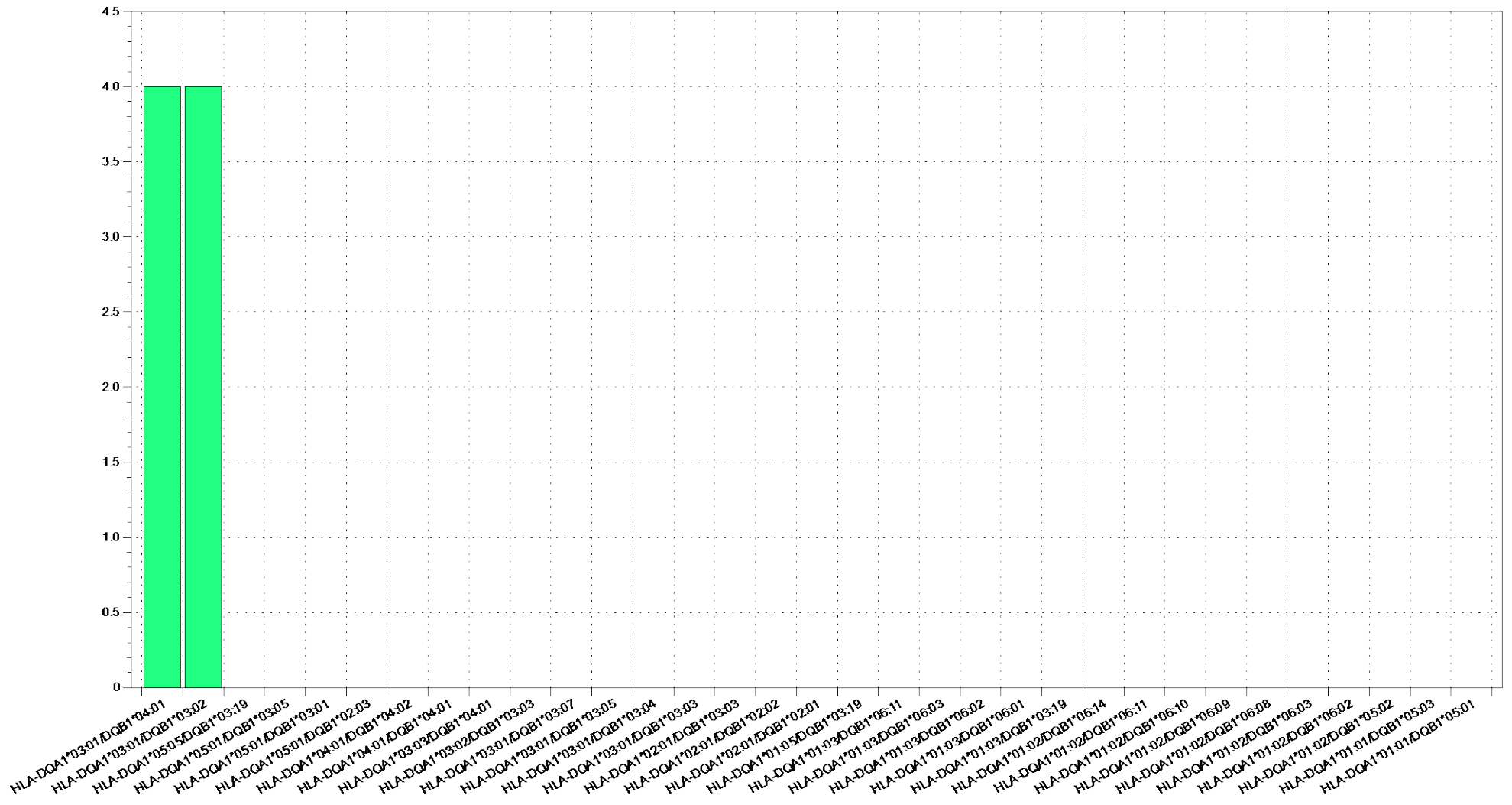
Allele combinations are ordered alphabetically.

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



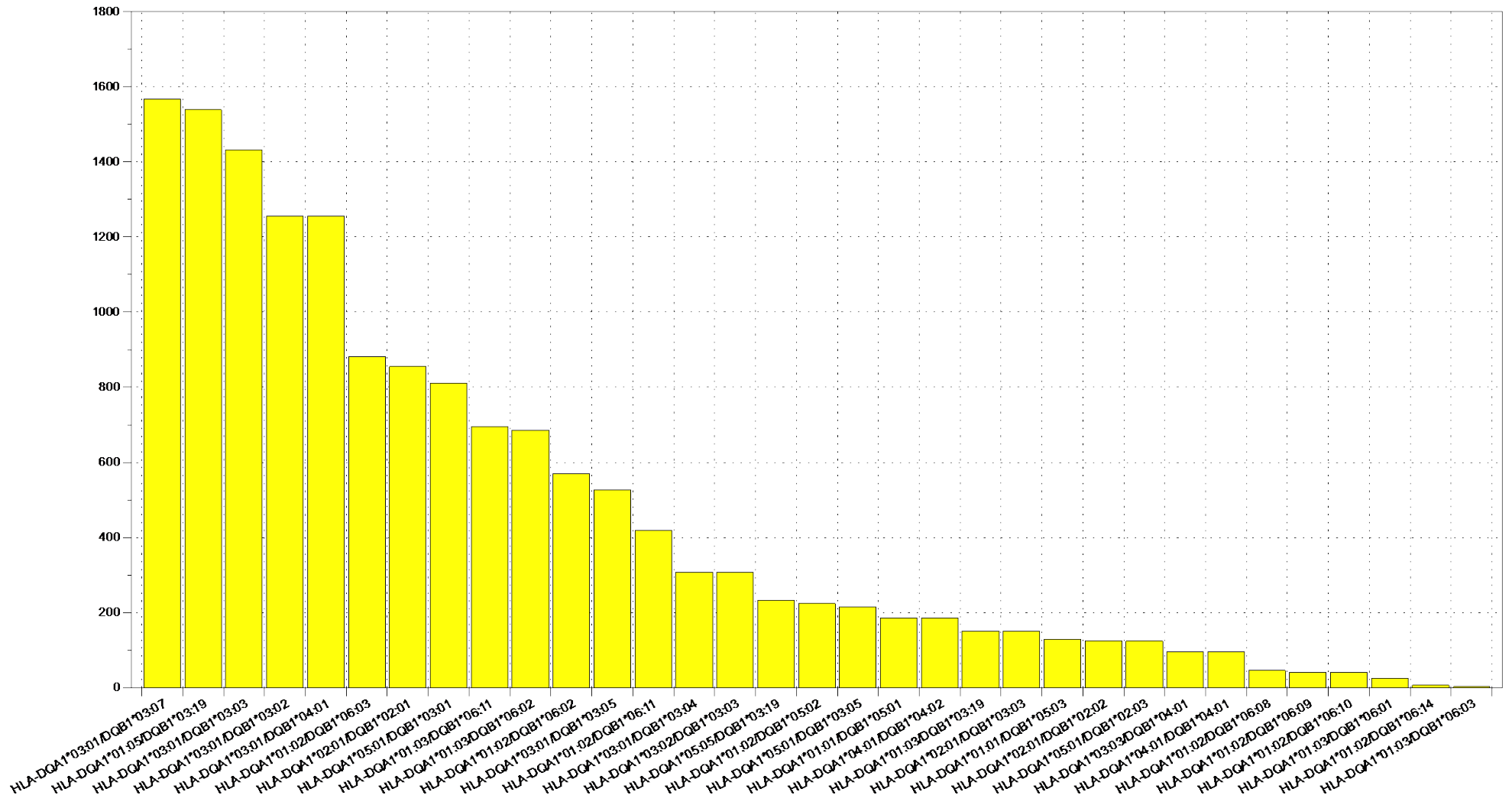
Allele combinations are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 1000$ nM) and weak (1000 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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



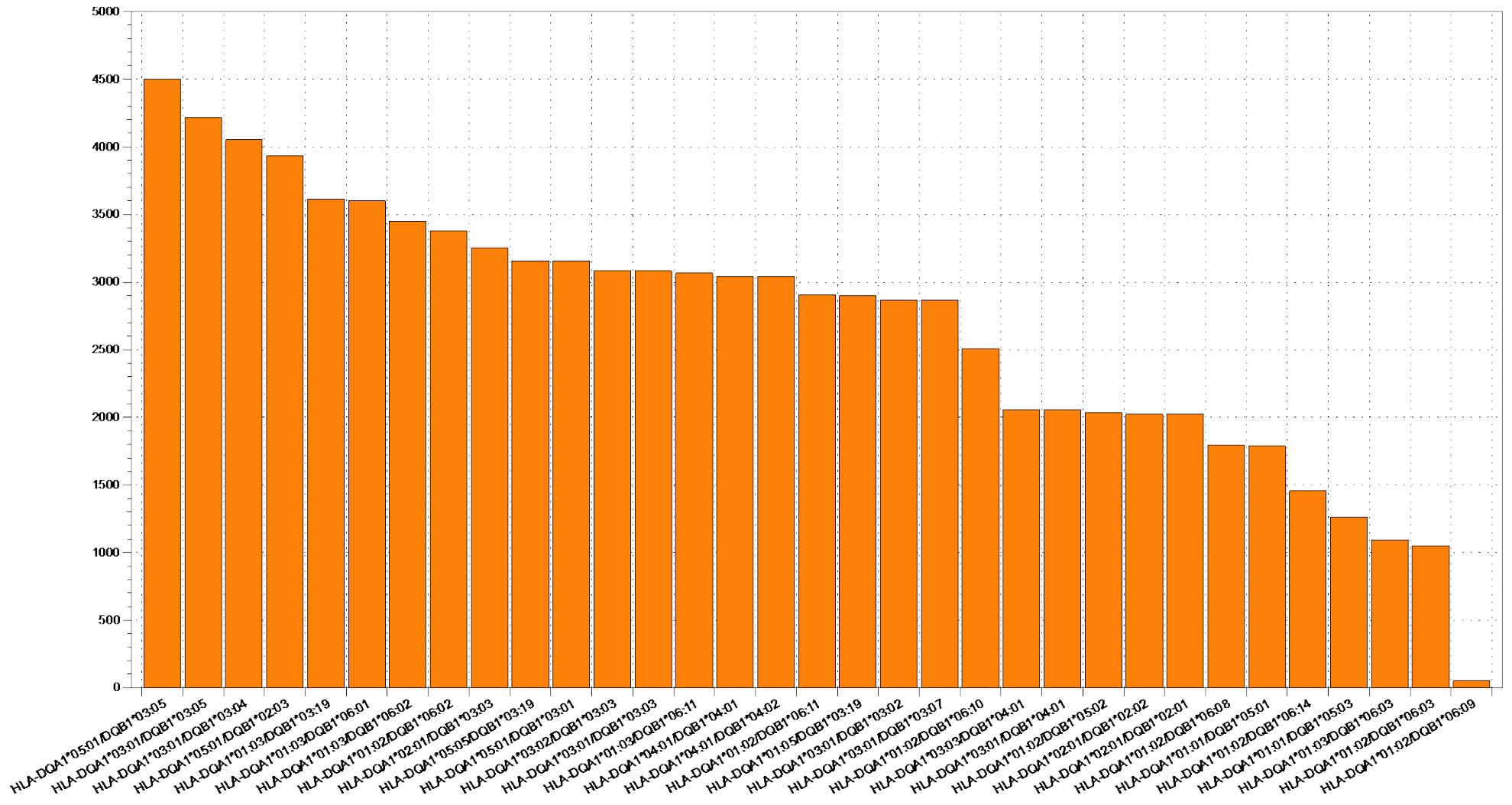
Allele combinations are ordered on the x-axis by their strong ($IC_{50} \leq 50$ nM) binding prediction and the number of peptides presented are displayed on the y-axis.

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 nM < IC₅₀ ≤ 1000 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.