

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 7

Extended results for the binding predictions for HIV

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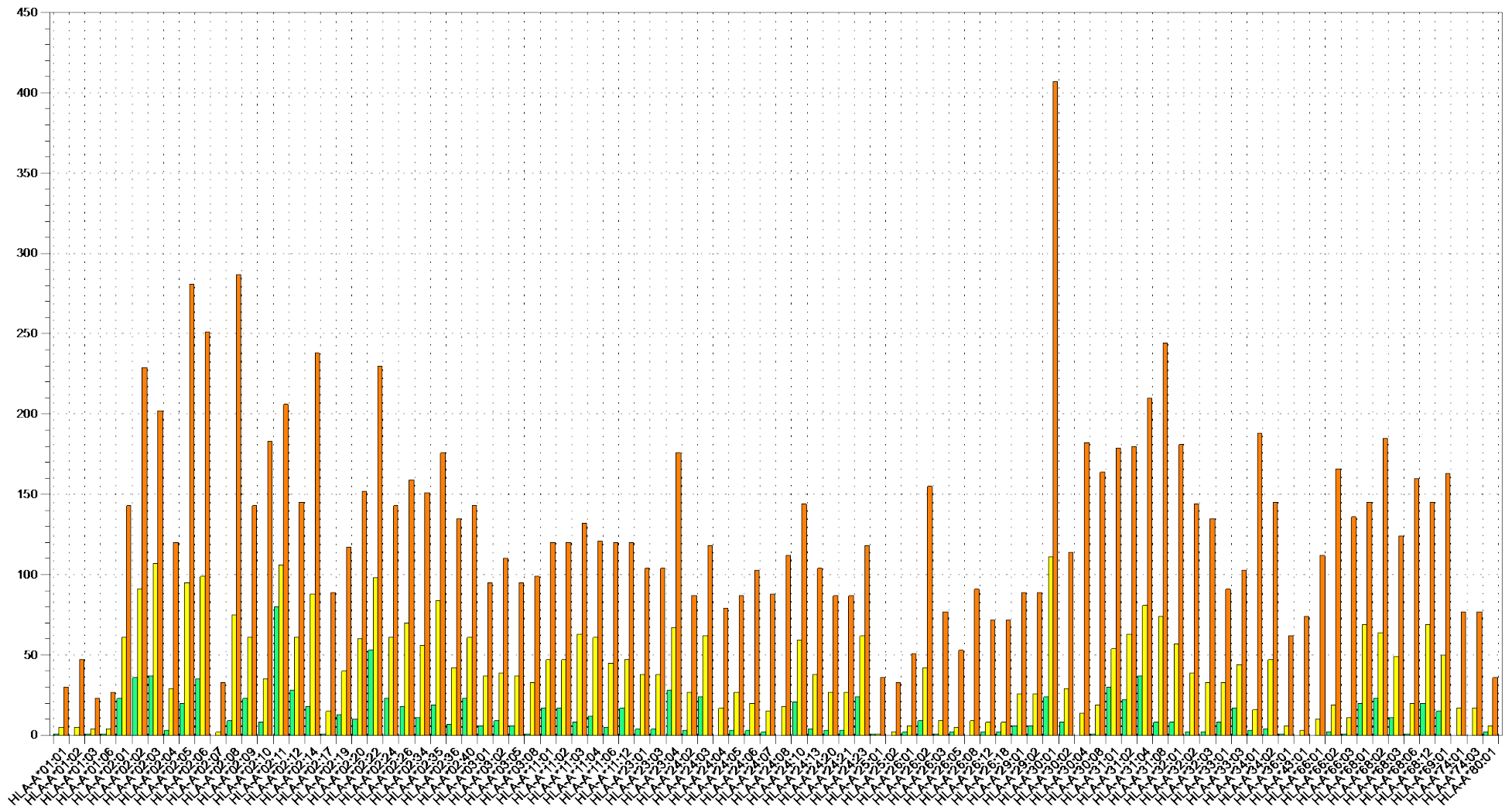
Total number of peptides with strong, regular and weak binding predictions for *HLA-A*

	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	1	5	30	2767
HLA-A*01:02	0	5	47	2751
HLA-A*01:03	1	4	23	2775
HLA-A*01:06	1	4	27	2771
HLA-A*02:01	23	61	143	2576
HLA-A*02:02	36	91	229	2447
HLA-A*02:03	37	107	202	2457
HLA-A*02:04	3	29	120	2651
HLA-A*02:05	20	95	281	2407
HLA-A*02:06	35	99	251	2418
HLA-A*02:07	0	2	33	2768
HLA-A*02:08	9	75	287	2432
HLA-A*02:09	23	61	143	2576
HLA-A*02:10	8	35	183	2577
HLA-A*02:11	80	106	206	2411
HLA-A*02:12	28	61	145	2569
HLA-A*02:14	18	88	238	2459
HLA-A*02:17	1	15	89	2698
HLA-A*02:19	13	40	117	2633
HLA-A*02:20	10	60	152	2581
HLA-A*02:22	53	98	230	2422
HLA-A*02:24	23	61	143	2576
HLA-A*02:26	18	70	159	2556
HLA-A*02:34	11	56	151	2585
HLA-A*02:35	19	84	176	2524
HLA-A*02:36	7	42	135	2619
HLA-A*02:40	23	61	143	2576
HLA-A*03:01	6	37	95	2665
HLA-A*03:02	9	39	110	2645
HLA-A*03:05	6	37	95	2665
HLA-A*03:08	1	33	99	2670
HLA-A*11:01	17	47	120	2619
HLA-A*11:02	17	47	120	2619
HLA-A*11:03	8	63	132	2600
HLA-A*11:04	12	61	121	2609
HLA-A*11:06	5	45	120	2633
HLA-A*11:12	17	47	120	2619
HLA-A*23:01	4	38	104	2657
HLA-A*23:03	4	38	104	2657
HLA-A*23:04	28	67	176	2532
HLA-A*24:02	3	27	87	2686
HLA-A*24:03	24	62	118	2599
HLA-A*24:04	0	17	79	2707
HLA-A*24:05	3	27	87	2686
HLA-A*24:06	3	20	103	2677
HLA-A*24:07	2	15	88	2698
HLA-A*24:08	0	18	112	2673
HLA-A*24:10	21	59	144	2579
HLA-A*24:13	4	38	104	2657
HLA-A*24:20	3	27	87	2686
HLA-A*24:21	3	27	87	2686
HLA-A*24:23	24	62	118	2599
HLA-A*25:01	1	1	36	2765
HLA-A*25:02	0	2	33	2768
HLA-A*26:01	2	6	51	2744
HLA-A*26:02	9	42	155	2597
HLA-A*26:03	1	9	77	2716
HLA-A*26:05	2	5	53	2743
HLA-A*26:08	0	9	91	2703
HLA-A*26:12	2	8	72	2721
HLA-A*26:18	2	8	72	2721
HLA-A*29:01	6	26	89	2682

	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	6	26	89	2682
HLA-A*30:01	24	111	407	2261
HLA-A*30:02	8	29	114	2652
HLA-A*30:04	0	14	182	2607
HLA-A*30:08	1	19	164	2619
HLA-A*31:01	30	54	179	2540
HLA-A*31:02	22	63	180	2538
HLA-A*31:04	37	81	210	2475
HLA-A*31:08	8	74	244	2477
HLA-A*32:01	8	57	181	2557
HLA-A*32:02	2	39	144	2618
HLA-A*32:03	2	33	135	2633
HLA-A*33:01	8	33	91	2671
HLA-A*33:03	17	44	103	2639
HLA-A*34:01	3	16	188	2596
HLA-A*34:02	4	47	145	2607
HLA-A*36:01	1	6	62	2734
HLA-A*43:01	0	3	74	2726
HLA-A*66:01	0	10	112	2681
HLA-A*66:02	2	19	166	2616
HLA-A*66:03	1	11	136	2655
HLA-A*68:01	20	69	145	2569
HLA-A*68:02	23	64	185	2531
HLA-A*68:03	11	49	124	2619
HLA-A*68:06	1	20	160	2622
HLA-A*68:12	20	69	145	2569
HLA-A*69:01	15	50	163	2575
HLA-A*74:01	0	17	77	2709
HLA-A*74:03	0	17	77	2709
HLA-A*80:01	2	6	36	2759

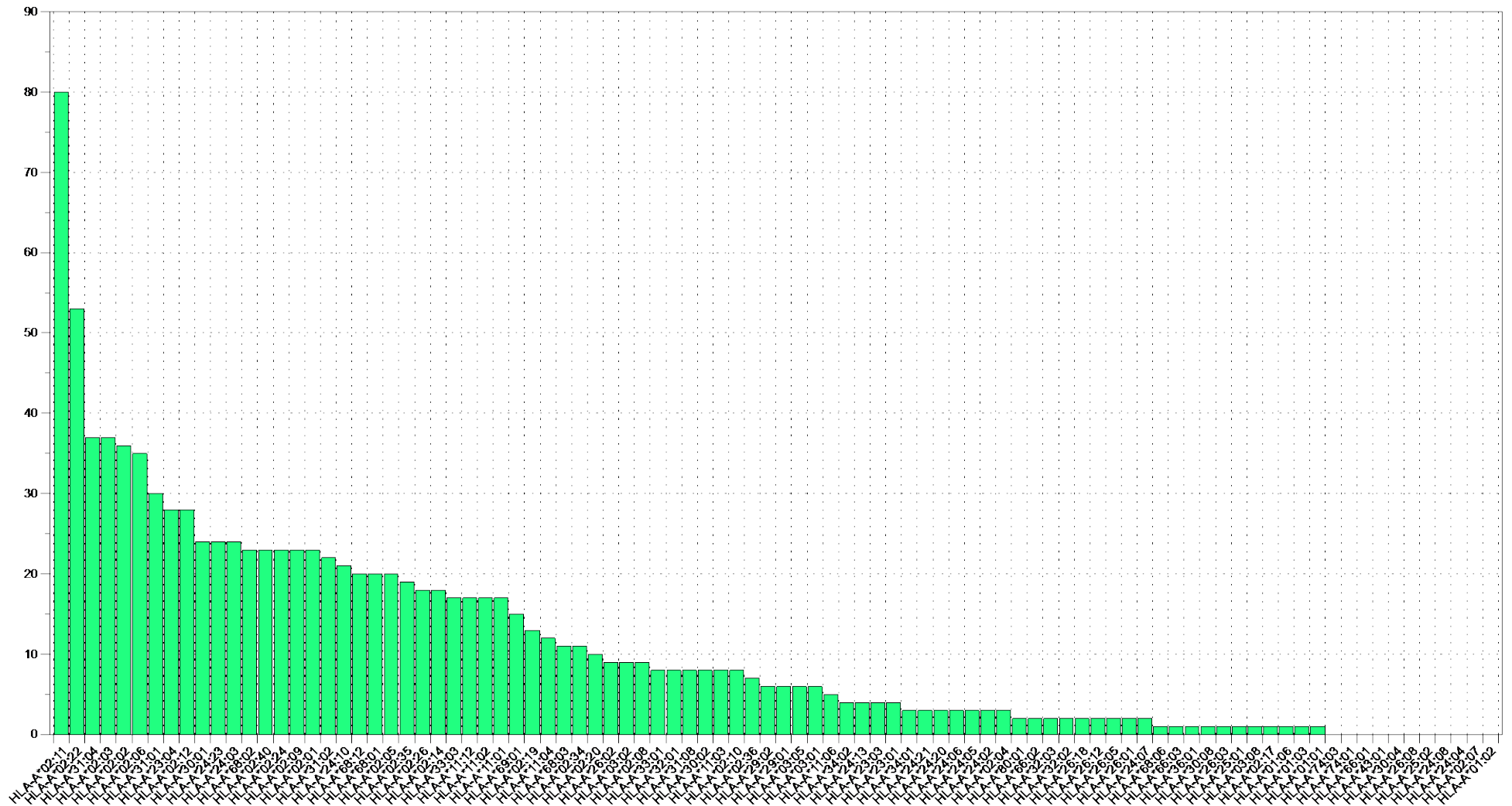
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-A*



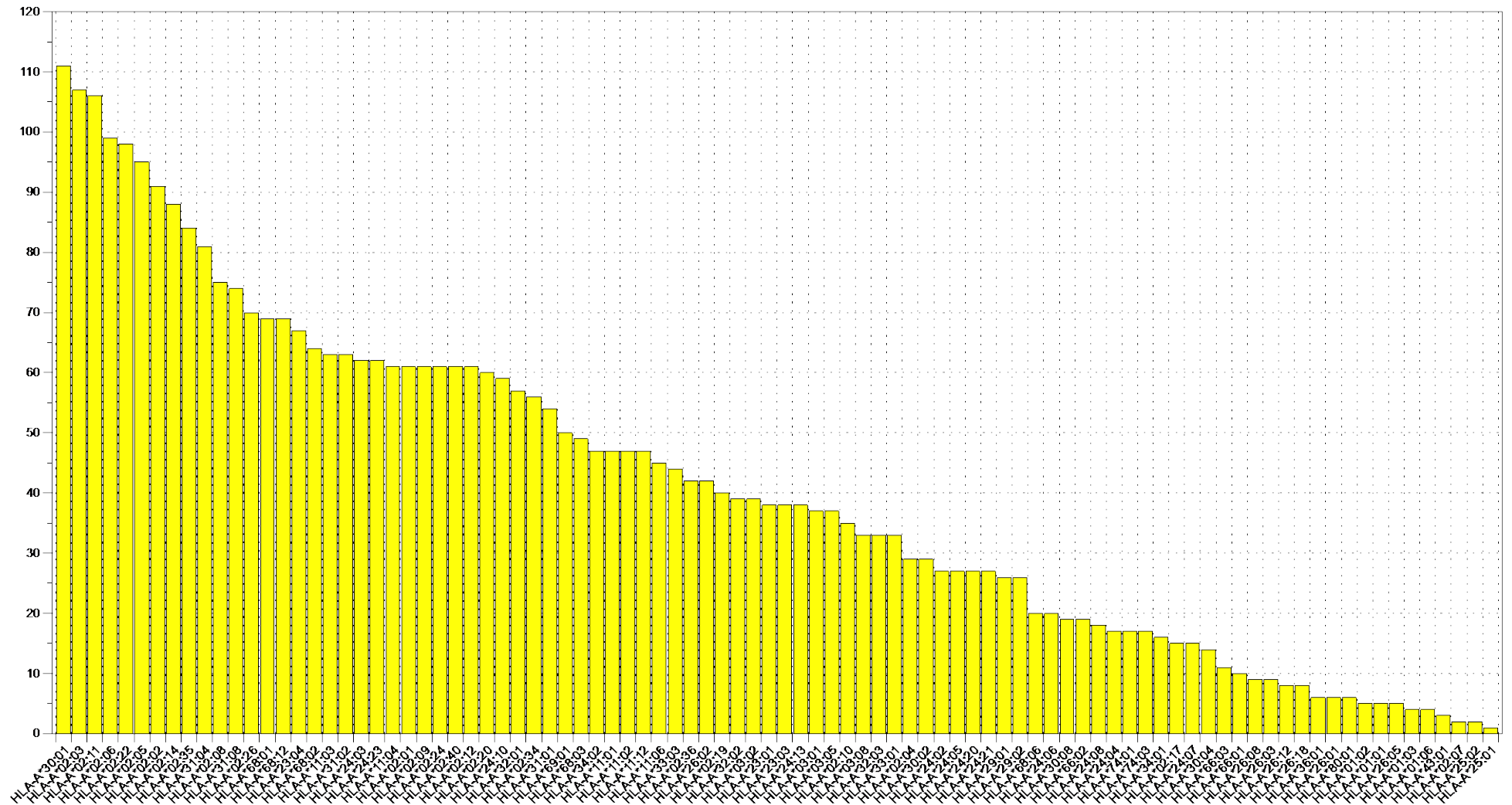
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 500$ nM) and weak (500 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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

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

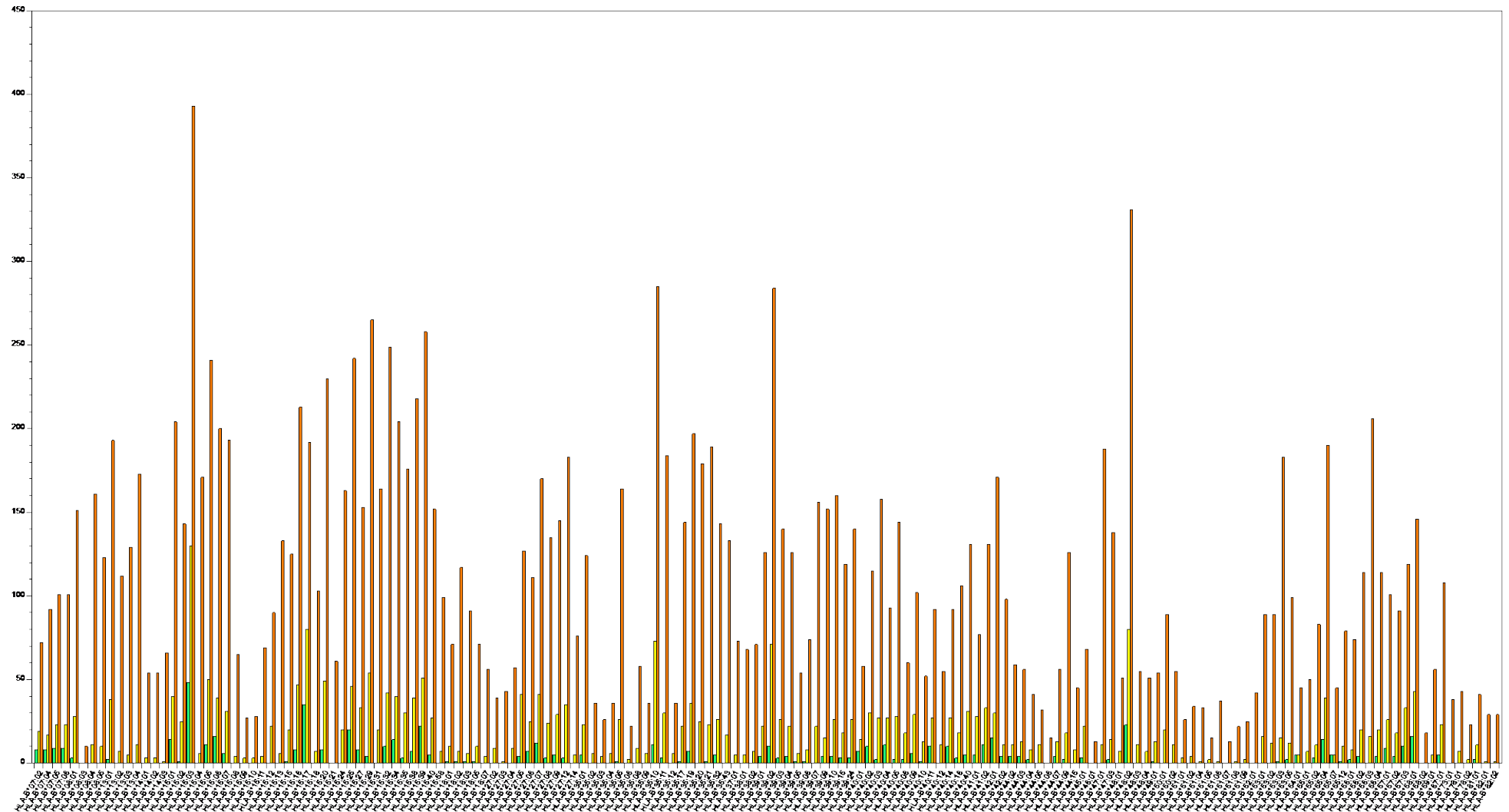
	IC₅₀ ≤ 50 nM Strong binders	50 nM < IC₅₀ ≤ 500 nM Regular binders	500 nM < IC₅₀ ≤ 5000 nM Weak binders	IC₅₀ > 5000 nM Non binders
HLA-B*07:02	8	19	72	2704
HLA-B*07:04	8	17	92	2686
HLA-B*07:05	9	23	101	2670
HLA-B*07:06	9	23	101	2670
HLA-B*08:01	3	28	151	2621
HLA-B*08:03	0	0	10	2793
HLA-B*08:04	0	11	161	2631
HLA-B*08:05	0	10	123	2670
HLA-B*13:01	2	38	193	2570
HLA-B*13:02	0	7	112	2684
HLA-B*13:03	0	5	129	2669
HLA-B*13:04	0	11	173	2619
HLA-B*14:01	0	3	54	2746
HLA-B*14:02	0	3	54	2746
HLA-B*14:03	0	1	66	2736
HLA-B*15:01	14	40	204	2545
HLA-B*15:02	1	25	143	2634
HLA-B*15:03	48	130	393	2232
HLA-B*15:04	0	6	171	2626
HLA-B*15:05	11	50	241	2501
HLA-B*15:06	16	39	200	2548
HLA-B*15:07	6	31	193	2573
HLA-B*15:08	0	4	65	2734
HLA-B*15:09	0	3	27	2773
HLA-B*15:10	0	3	28	2772
HLA-B*15:11	0	4	69	2730
HLA-B*15:12	0	22	90	2691
HLA-B*15:13	0	6	133	2664
HLA-B*15:15	1	20	125	2657
HLA-B*15:16	8	47	213	2535
HLA-B*15:17	35	80	192	2496
HLA-B*15:18	0	7	103	2693
HLA-B*15:20	8	49	230	2516
HLA-B*15:21	0	0	61	2742
HLA-B*15:24	0	20	163	2620
HLA-B*15:25	20	46	242	2495
HLA-B*15:27	8	33	153	2609
HLA-B*15:29	4	54	265	2480
HLA-B*15:31	0	20	164	2619
HLA-B*15:32	10	42	249	2502
HLA-B*15:34	14	40	204	2545
HLA-B*15:35	3	30	176	2594
HLA-B*15:38	7	39	218	2539
HLA-B*15:39	22	51	258	2472
HLA-B*15:40	5	27	152	2619
HLA-B*15:58	0	7	99	2697
HLA-B*18:01	1	10	71	2721
HLA-B*18:02	1	7	117	2678
HLA-B*18:03	1	6	91	2705
HLA-B*18:05	1	10	71	2721
HLA-B*18:07	0	4	56	2743
HLA-B*27:02	0	9	39	2755
HLA-B*27:03	0	1	43	2759
HLA-B*27:04	0	9	57	2737
HLA-B*27:05	4	41	127	2631
HLA-B*27:06	7	25	111	2660
HLA-B*27:07	12	41	170	2580
HLA-B*27:08	3	24	135	2641
HLA-B*27:09	5	29	145	2624
HLA-B*27:12	3	35	183	2582
HLA-B*27:14	0	5	76	2722
HLA-B*35:01	5	23	124	2651

	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	0	6	36	2761
HLA-B*35:03	0	4	26	2773
HLA-B*35:04	0	6	36	2761
HLA-B*35:05	1	26	164	2612
HLA-B*35:06	0	2	22	2779
HLA-B*35:08	0	9	58	2736
HLA-B*35:09	0	6	36	2761
HLA-B*35:10	11	73	285	2434
HLA-B*35:11	3	30	184	2586
HLA-B*35:12	0	6	36	2761
HLA-B*35:17	1	22	144	2636
HLA-B*35:19	7	36	197	2563
HLA-B*35:20	0	25	179	2599
HLA-B*35:21	1	23	189	2590
HLA-B*35:32	5	26	143	2629
HLA-B*35:43	0	17	133	2653
HLA-B*37:01	0	5	73	2725
HLA-B*38:01	0	5	68	2730
HLA-B*38:02	0	7	71	2725
HLA-B*39:01	4	22	126	2651
HLA-B*39:02	10	71	284	2438
HLA-B*39:03	3	26	140	2634
HLA-B*39:04	4	22	126	2651
HLA-B*39:05	1	6	54	2742
HLA-B*39:06	1	8	74	2720
HLA-B*39:07	0	22	156	2625
HLA-B*39:09	4	15	152	2632
HLA-B*39:10	4	26	160	2613
HLA-B*39:15	3	18	119	2663
HLA-B*39:24	3	26	140	2634
HLA-B*40:01	7	14	58	2724
HLA-B*40:02	10	30	115	2648
HLA-B*40:03	2	27	158	2616
HLA-B*40:04	11	27	93	2672
HLA-B*40:05	2	28	144	2629
HLA-B*40:06	2	18	60	2723
HLA-B*40:09	6	29	102	2666
HLA-B*40:10	1	13	52	2737
HLA-B*40:11	10	27	92	2674
HLA-B*40:12	0	11	55	2737
HLA-B*40:14	10	27	92	2674
HLA-B*40:16	3	18	106	2676
HLA-B*40:40	5	31	131	2636
HLA-B*41:01	5	28	77	2693
HLA-B*41:02	11	33	131	2628
HLA-B*42:01	15	30	171	2587
HLA-B*42:02	4	11	98	2690
HLA-B*44:02	4	11	59	2729
HLA-B*44:03	4	13	56	2730
HLA-B*44:04	2	8	41	2752
HLA-B*44:05	0	11	32	2760
HLA-B*44:06	0	0	15	2788
HLA-B*44:07	4	13	56	2730
HLA-B*44:09	2	18	126	2657
HLA-B*44:15	0	8	45	2750
HLA-B*45:01	3	22	68	2710
HLA-B*46:01	0	0	13	2790
HLA-B*47:01	0	11	188	2604
HLA-B*47:03	2	14	138	2649
HLA-B*48:01	0	7	51	2745
HLA-B*48:02	23	80	331	2369
HLA-B*48:03	0	11	55	2737
HLA-B*48:04	0	7	51	2745
HLA-B*49:01	1	13	54	2735
HLA-B*50:01	0	20	89	2694

	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	11	55	2737
HLA-B*51:01	0	3	26	2774
HLA-B*51:02	0	4	34	2765
HLA-B*51:04	0	1	33	2769
HLA-B*51:05	0	2	15	2786
HLA-B*51:06	0	1	37	2765
HLA-B*51:07	0	0	13	2790
HLA-B*51:08	0	1	22	2780
HLA-B*51:09	0	2	25	2776
HLA-B*52:01	0	0	42	2761
HLA-B*53:01	0	16	89	2698
HLA-B*53:02	0	12	89	2702
HLA-B*53:03	1	15	183	2604
HLA-B*53:05	2	12	99	2690
HLA-B*54:01	5	5	45	2748
HLA-B*55:01	0	7	50	2746
HLA-B*55:02	3	11	83	2706
HLA-B*55:04	14	39	190	2560
HLA-B*55:07	5	5	45	2748
HLA-B*55:12	1	10	79	2713
HLA-B*56:01	2	8	74	2719
HLA-B*56:02	4	20	114	2665
HLA-B*56:03	0	16	206	2581
HLA-B*56:04	4	20	114	2665
HLA-B*57:01	9	26	101	2667
HLA-B*57:02	4	18	91	2690
HLA-B*57:03	10	33	119	2641
HLA-B*58:01	16	43	146	2598
HLA-B*58:02	0	0	18	2785
HLA-B*59:01	0	5	56	2742
HLA-B*67:01	5	23	108	2667
HLA-B*73:01	0	0	38	2765
HLA-B*78:01	0	7	43	2753
HLA-B*78:02	0	2	23	2778
HLA-B*81:01	2	11	41	2749
HLA-B*82:01	0	1	29	2773
HLA-B*82:02	0	1	29	2773

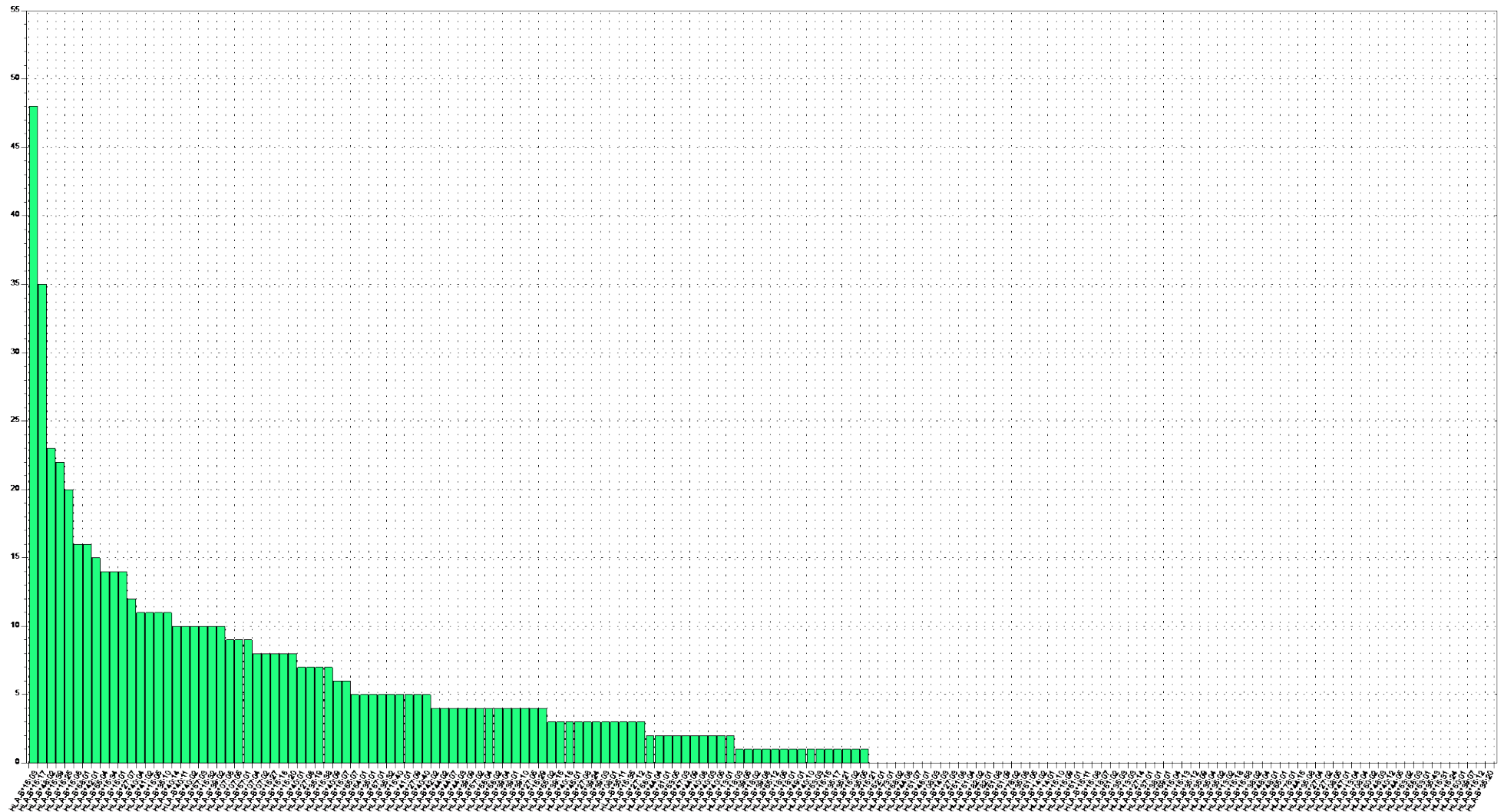
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-B*

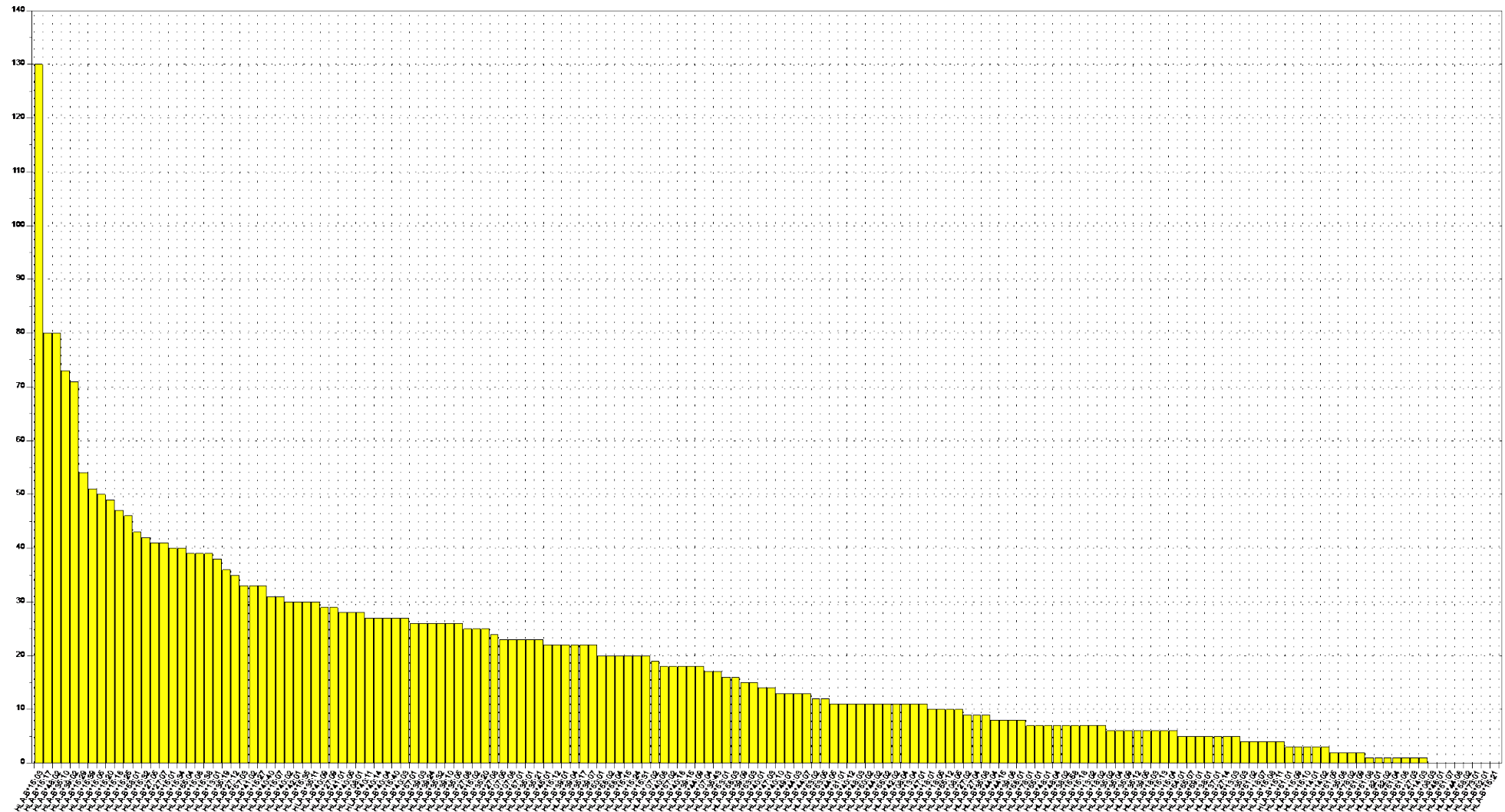


Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular ($50 \text{ nM} < IC_{50} \leq 500$ nM) and weak ($500 \text{ nM} < IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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

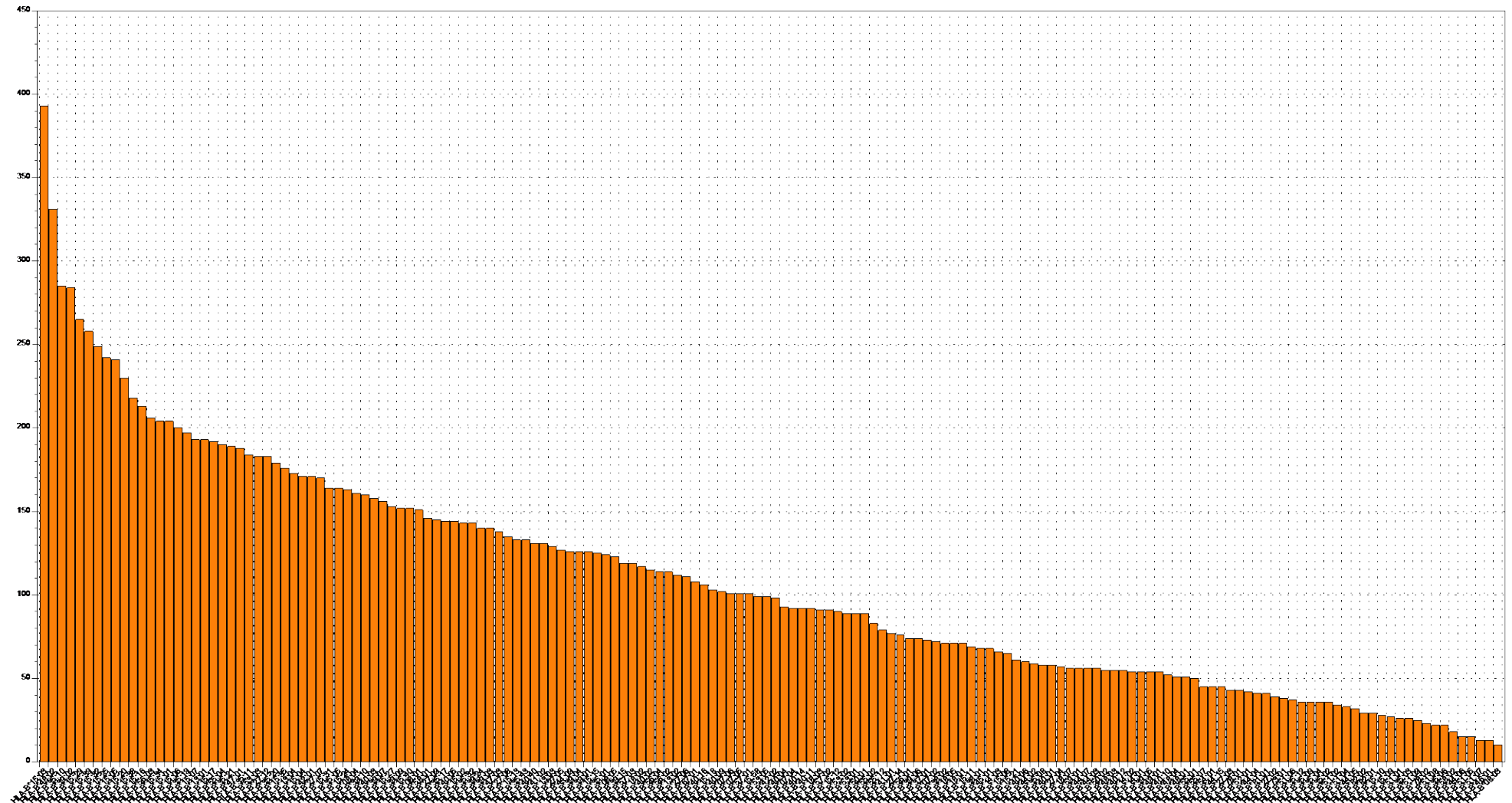


HLA-B alleles ordered by number of presented peptides with regular binding prediction



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



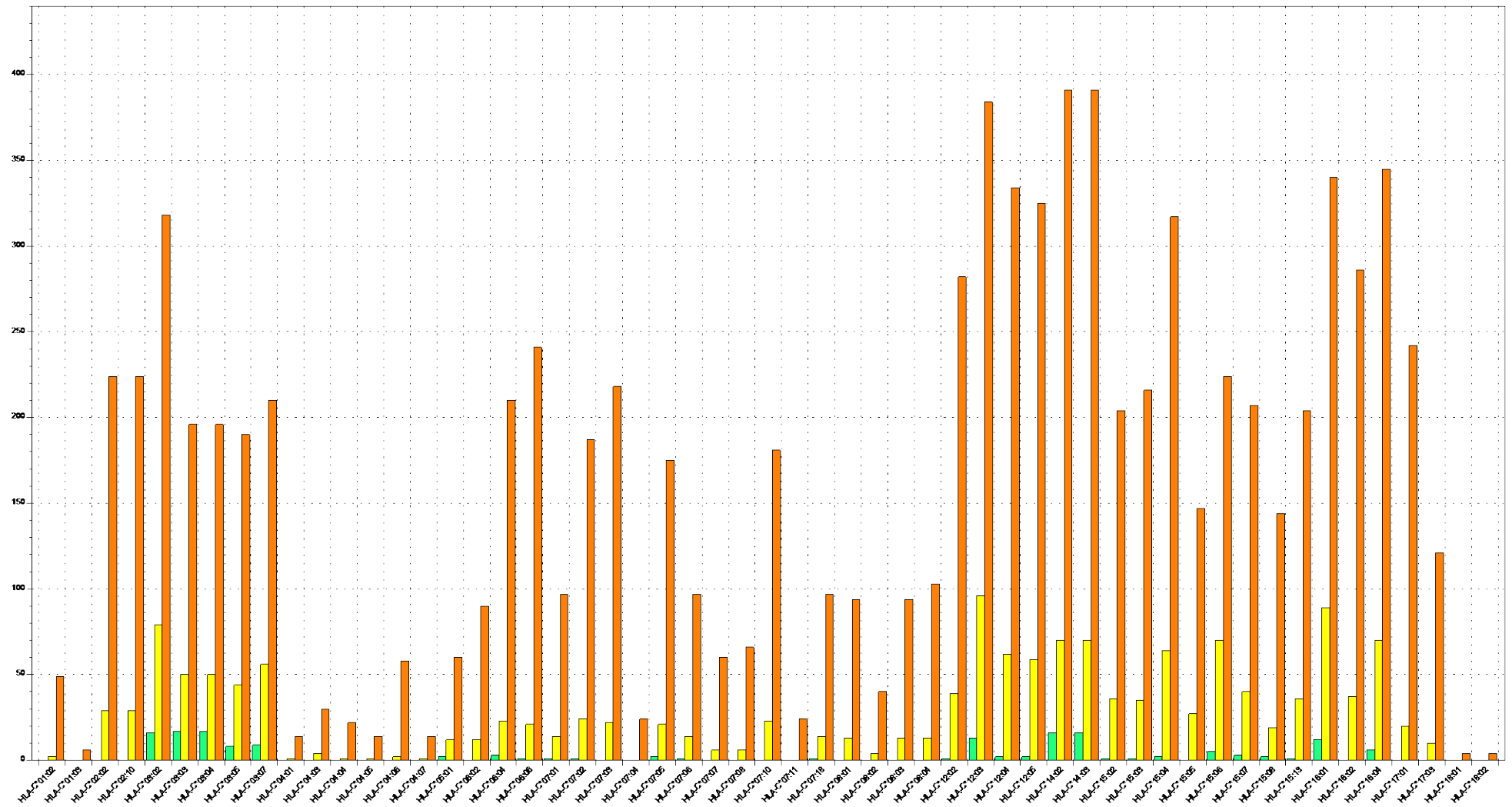
Alleles are ordered on the x-axis by their weak ($500 \text{ nM} < IC_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

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	2	49	2752
HLA-C*01:03	0	0	6	2797
HLA-C*02:02	0	29	224	2550
HLA-C*02:10	0	29	224	2550
HLA-C*03:02	16	79	318	2390
HLA-C*03:03	17	50	196	2540
HLA-C*03:04	17	50	196	2540
HLA-C*03:05	8	44	190	2561
HLA-C*03:07	9	56	210	2528
HLA-C*04:01	0	1	14	2788
HLA-C*04:03	0	4	30	2769
HLA-C*04:04	0	1	22	2780
HLA-C*04:05	0	1	14	2788
HLA-C*04:06	0	2	58	2743
HLA-C*04:07	0	1	14	2788
HLA-C*05:01	2	12	60	2729
HLA-C*06:02	0	12	90	2701
HLA-C*06:04	3	23	210	2567
HLA-C*06:06	1	21	241	2540
HLA-C*07:01	1	14	97	2691
HLA-C*07:02	1	24	187	2591
HLA-C*07:03	0	22	218	2563
HLA-C*07:04	0	0	24	2779
HLA-C*07:05	2	21	175	2605
HLA-C*07:06	1	14	97	2691
HLA-C*07:07	0	6	60	2737
HLA-C*07:08	0	6	66	2731
HLA-C*07:10	0	23	181	2599
HLA-C*07:11	0	0	24	2779
HLA-C*07:18	1	14	97	2691
HLA-C*08:01	0	13	94	2696
HLA-C*08:02	0	4	40	2759
HLA-C*08:03	0	13	94	2696
HLA-C*08:04	0	13	103	2687
HLA-C*12:02	1	39	282	2481
HLA-C*12:03	13	96	384	2310
HLA-C*12:04	2	62	334	2405
HLA-C*12:05	2	59	325	2417
HLA-C*14:02	16	70	391	2326
HLA-C*14:03	16	70	391	2326
HLA-C*15:02	1	36	204	2562
HLA-C*15:03	1	35	216	2551
HLA-C*15:04	2	64	317	2420
HLA-C*15:05	0	27	147	2629
HLA-C*15:06	5	70	224	2504
HLA-C*15:07	3	40	207	2553
HLA-C*15:08	2	19	144	2638
HLA-C*15:13	1	36	204	2562
HLA-C*16:01	12	89	340	2362
HLA-C*16:02	0	37	286	2480
HLA-C*16:04	6	70	345	2382
HLA-C*17:01	0	20	242	2541
HLA-C*17:03	0	10	121	2672
HLA-C*18:01	0	0	4	2799
HLA-C*18:02	0	0	4	2799

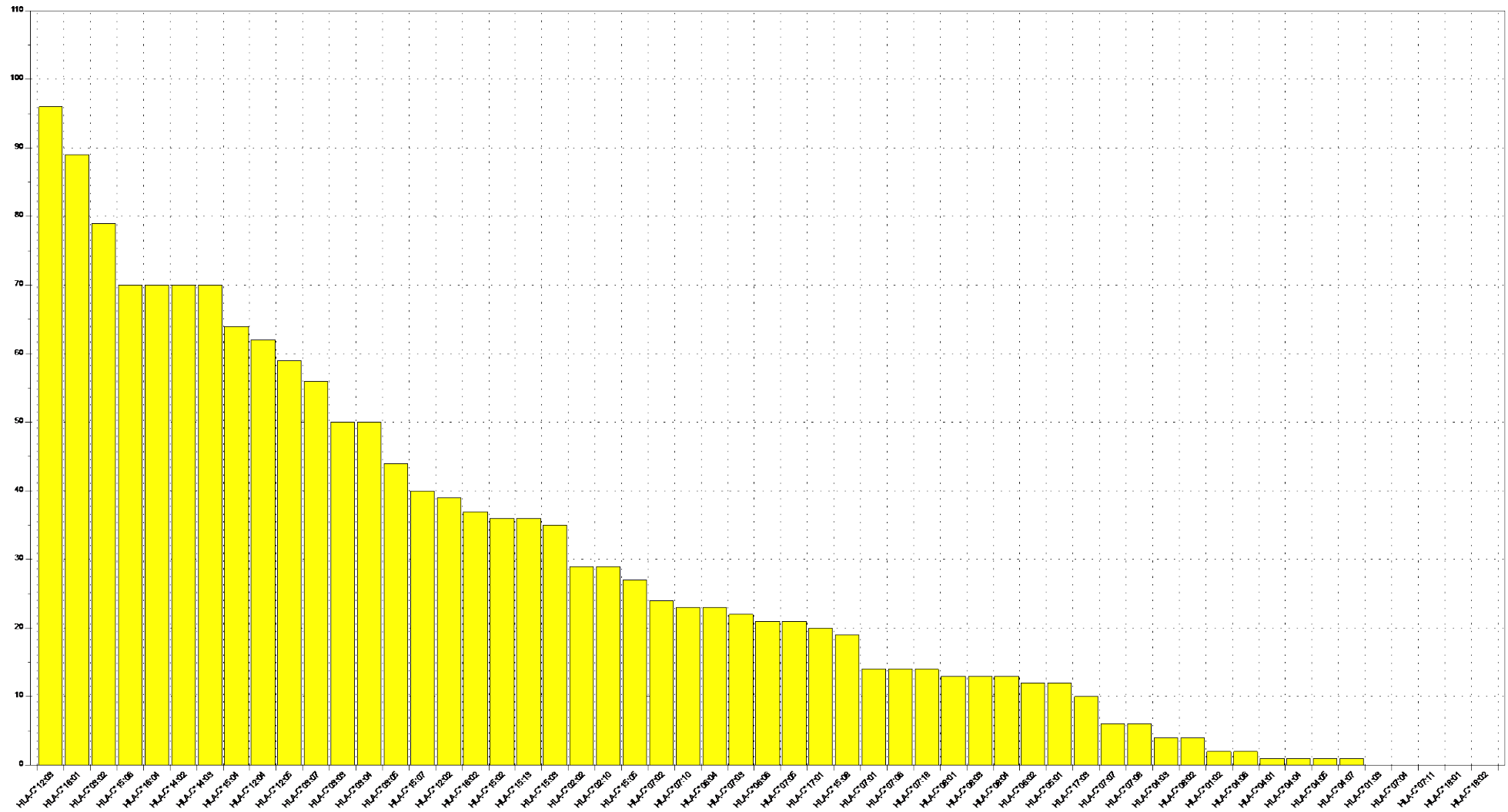
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-C*



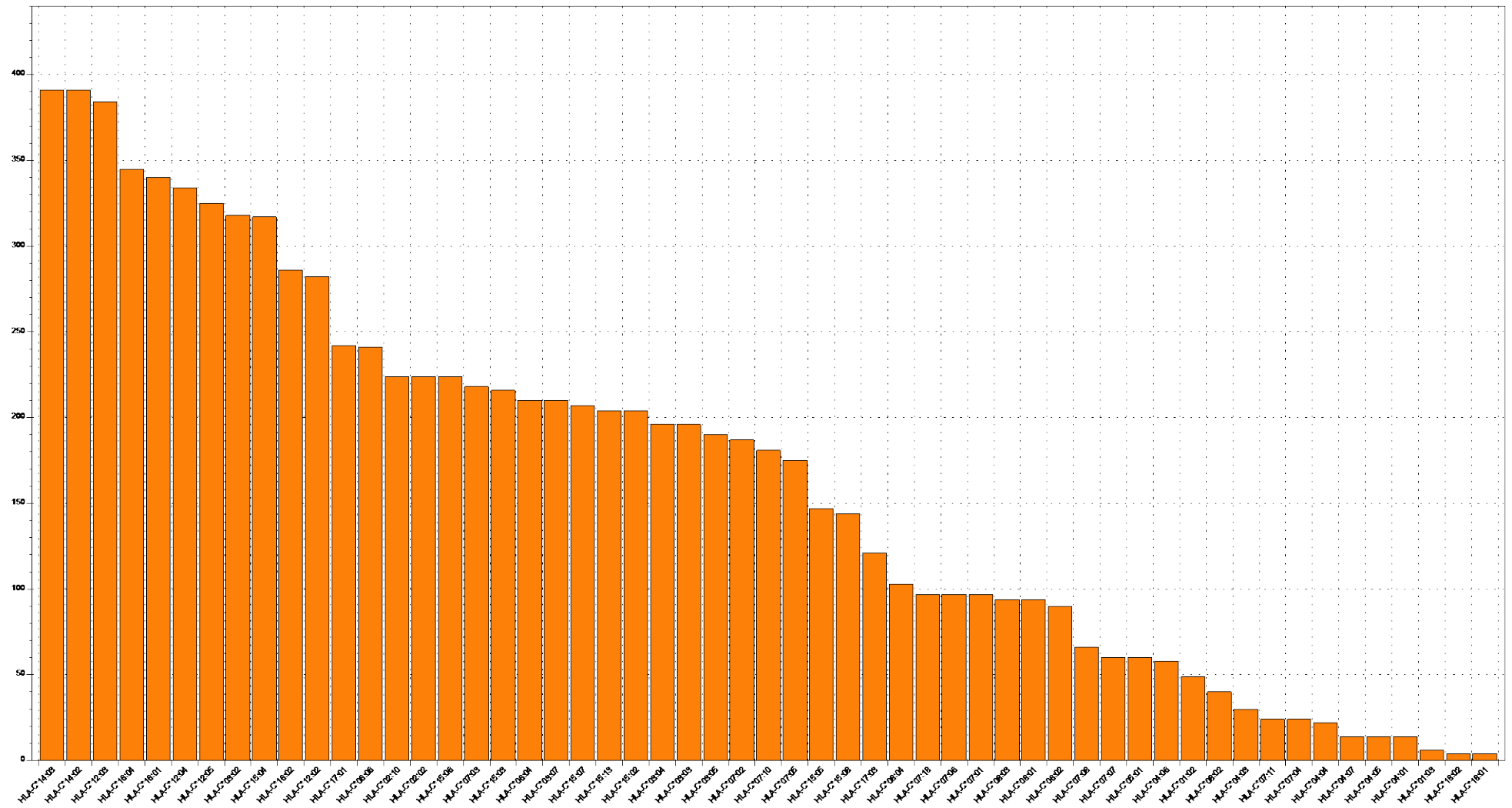
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 500$ nM) and weak (500 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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

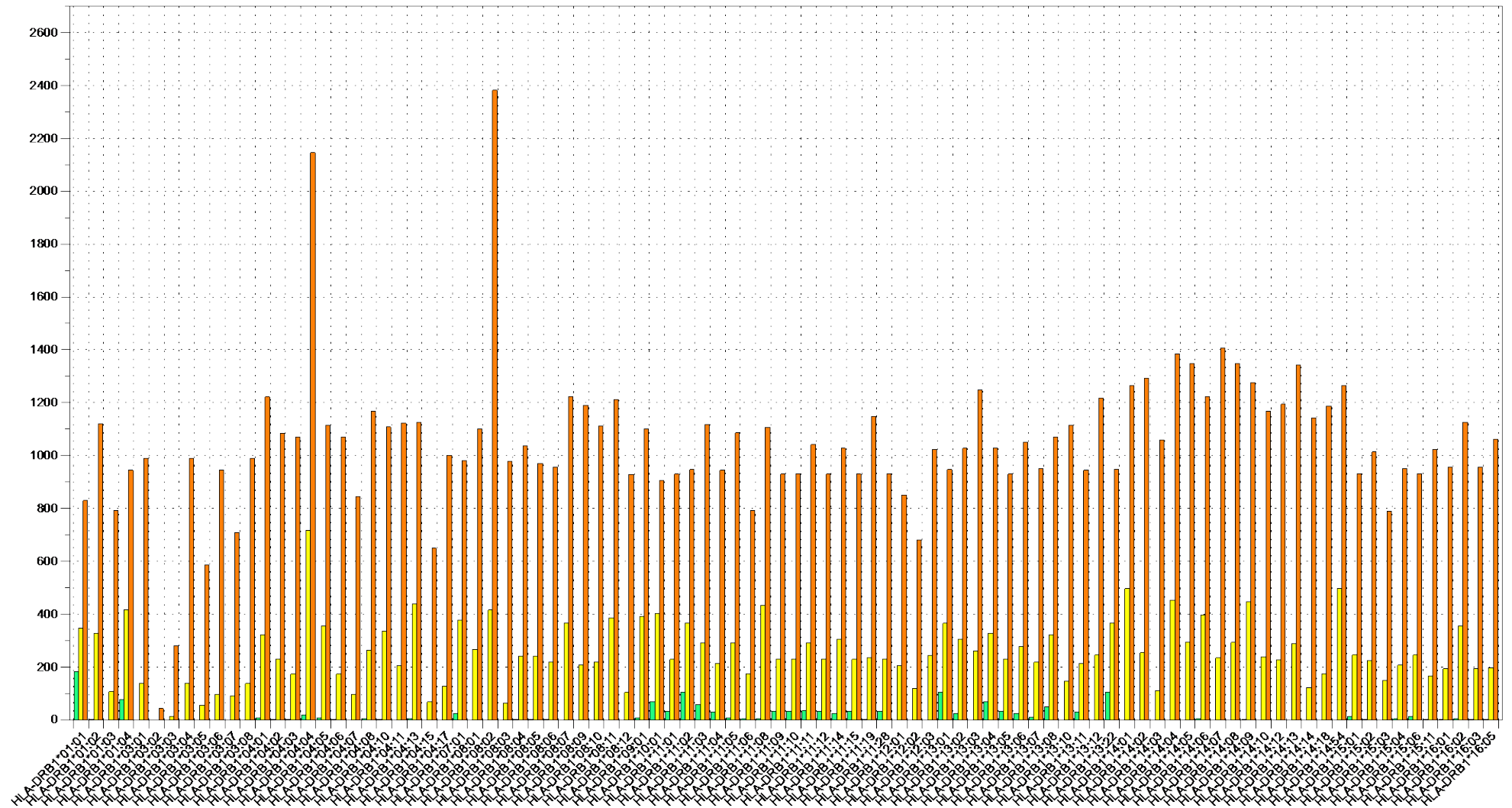
Total number of peptides with strong, regular and weak binding predictions for *HLA-DRB1*

	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*01:01	182	348	830	1418
HLA-DRB1*01:02	2	329	1120	1327
HLA-DRB1*01:03	0	107	792	1879
HLA-DRB1*01:04	77	417	945	1339
HLA-DRB1*03:01	0	137	989	1652
HLA-DRB1*03:02	0	0	43	2735
HLA-DRB1*03:03	0	12	280	2486
HLA-DRB1*03:04	0	137	989	1652
HLA-DRB1*03:05	0	56	587	2135
HLA-DRB1*03:06	0	97	945	1736
HLA-DRB1*03:07	0	91	709	1978
HLA-DRB1*03:08	0	137	989	1652
HLA-DRB1*04:01	8	323	1222	1225
HLA-DRB1*04:02	2	231	1084	1461
HLA-DRB1*04:03	2	174	1070	1532
HLA-DRB1*04:04	9	359	1073	1337
HLA-DRB1*04:05	7	355	1116	1300
HLA-DRB1*04:06	2	174	1070	1532
HLA-DRB1*04:07	0	96	846	1836
HLA-DRB1*04:08	4	264	1168	1342
HLA-DRB1*04:10	3	335	1108	1332
HLA-DRB1*04:11	0	206	1123	1449
HLA-DRB1*04:13	4	438	1127	1209
HLA-DRB1*04:15	0	68	649	2061
HLA-DRB1*04:17	0	127	1001	1650
HLA-DRB1*07:01	24	377	981	1396
HLA-DRB1*08:01	0	267	1101	1410
HLA-DRB1*08:02	0	208	1191	1379
HLA-DRB1*08:03	0	64	978	1736
HLA-DRB1*08:04	2	240	1037	1499
HLA-DRB1*08:05	3	242	971	1562
HLA-DRB1*08:06	2	220	956	1600
HLA-DRB1*08:07	0	367	1224	1187
HLA-DRB1*08:09	0	208	1191	1379
HLA-DRB1*08:10	0	220	1112	1446
HLA-DRB1*08:11	0	386	1213	1179
HLA-DRB1*08:12	0	104	929	1745
HLA-DRB1*09:01	7	391	1100	1280
HLA-DRB1*10:01	69	403	907	1399
HLA-DRB1*11:01	33	229	930	1586
HLA-DRB1*11:02	105	366	947	1360
HLA-DRB1*11:03	58	291	1117	1312
HLA-DRB1*11:04	31	214	945	1588
HLA-DRB1*11:05	8	290	1086	1394
HLA-DRB1*11:06	4	174	791	1809
HLA-DRB1*11:08	5	434	1107	1232
HLA-DRB1*11:09	33	229	930	1586
HLA-DRB1*11:10	33	229	930	1586
HLA-DRB1*11:11	34	292	1042	1410
HLA-DRB1*11:12	33	229	930	1586
HLA-DRB1*11:14	25	305	1027	1421
HLA-DRB1*11:15	33	229	930	1586
HLA-DRB1*11:19	2	235	1148	1393
HLA-DRB1*11:28	33	229	930	1586
HLA-DRB1*12:01	0	206	851	1721
HLA-DRB1*12:02	0	120	681	1977
HLA-DRB1*12:03	0	245	1022	1511
HLA-DRB1*13:01	105	366	947	1360
HLA-DRB1*13:02	25	305	1027	1421
HLA-DRB1*13:03	0	262	1247	1269
HLA-DRB1*13:04	70	329	1029	1350
HLA-DRB1*13:05	33	229	930	1586

	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	25	278	1052	1423
HLA-DRB1*13:07	11	218	951	1598
HLA-DRB1*13:08	49	321	1071	1337
HLA-DRB1*13:10	0	148	1114	1516
HLA-DRB1*13:11	31	214	945	1588
HLA-DRB1*13:12	0	246	1218	1314
HLA-DRB1*13:22	105	366	947	1360
HLA-DRB1*14:01	0	496	1265	1017
HLA-DRB1*14:02	0	254	1294	1230
HLA-DRB1*14:03	0	112	1058	1608
HLA-DRB1*14:04	0	454	1385	939
HLA-DRB1*14:05	0	293	1349	1136
HLA-DRB1*14:06	5	396	1222	1155
HLA-DRB1*14:07	0	235	1407	1136
HLA-DRB1*14:08	0	293	1349	1136
HLA-DRB1*14:09	1	447	1275	1055
HLA-DRB1*14:10	0	239	1169	1370
HLA-DRB1*14:12	0	227	1194	1357
HLA-DRB1*14:13	0	288	1344	1146
HLA-DRB1*14:14	0	122	1142	1514
HLA-DRB1*14:18	0	174	1188	1416
HLA-DRB1*14:54	0	496	1265	1017
HLA-DRB1*15:01	14	246	932	1586
HLA-DRB1*15:02	1	225	1014	1538
HLA-DRB1*15:03	0	150	790	1838
HLA-DRB1*15:04	4	207	951	1616
HLA-DRB1*15:06	14	246	932	1586
HLA-DRB1*15:11	1	167	1023	1587
HLA-DRB1*16:01	1	194	957	1626
HLA-DRB1*16:02	4	355	1126	1293
HLA-DRB1*16:03	1	194	957	1626
HLA-DRB1*16:05	2	198	1061	1517

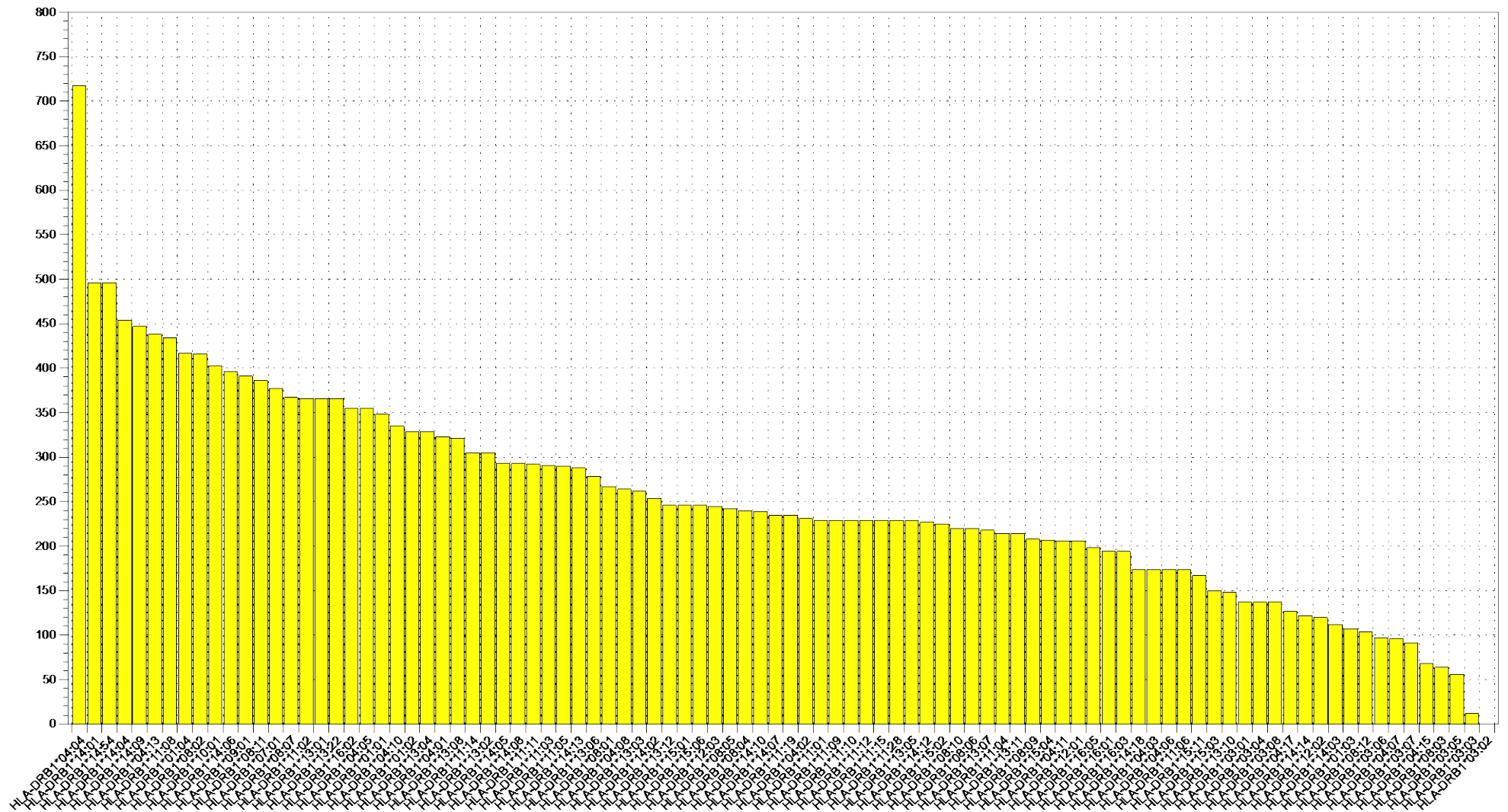
Alleles are ordered alphabetically.

General binding prediction tendencies for *HLA-DRB1*



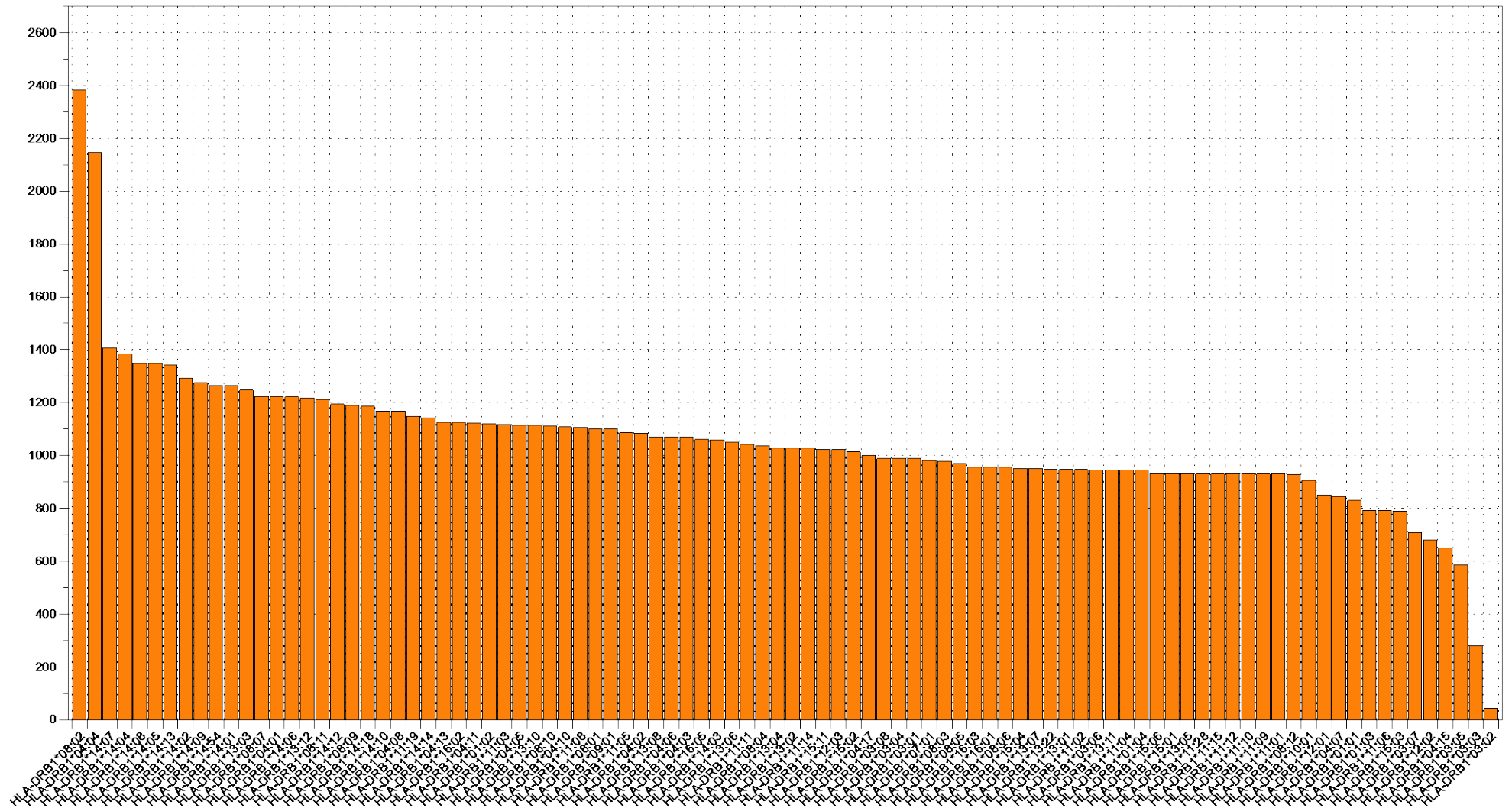
Alleles are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 1000$ nM) and weak (1000 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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



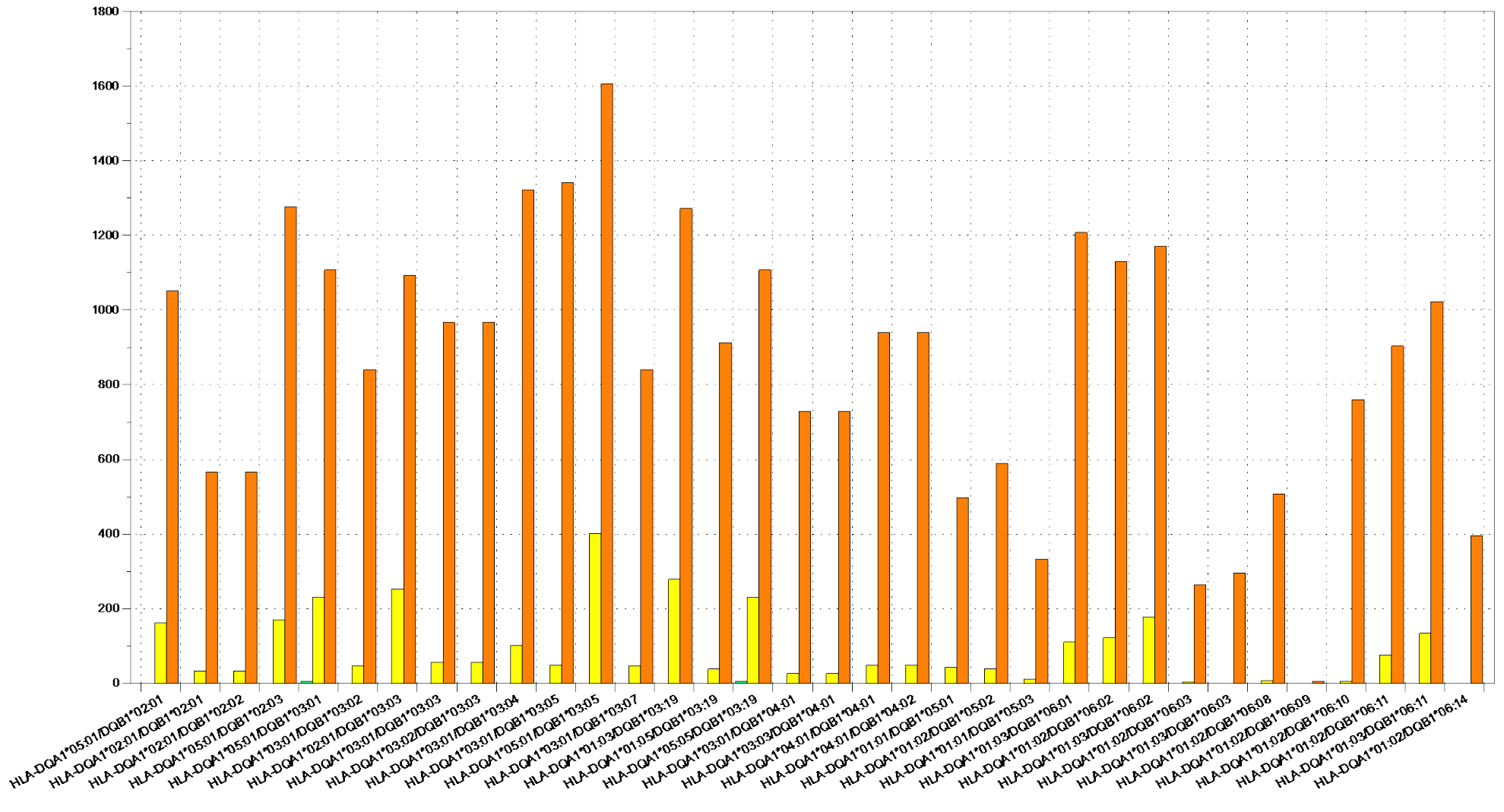
Alleles are ordered on the x-axis by their weak ($1000 \text{ nM} < IC_{50} \leq 5000 \text{ nM}$) binding prediction and the number of peptides presented are displayed on the y-axis.

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*05:01/DQB1*02:01	0	162	1052	1564
HLA-DQA1*02:01/DQB1*02:01	0	34	566	2178
HLA-DQA1*02:01/DQB1*02:02	0	34	566	2178
HLA-DQA1*05:01/DQB1*02:03	0	170	1277	1331
HLA-DQA1*05:01/DQB1*03:01	5	231	1108	1434
HLA-DQA1*03:01/DQB1*03:02	0	47	841	1890
HLA-DQA1*02:01/DQB1*03:03	0	253	1093	1432
HLA-DQA1*03:01/DQB1*03:03	0	57	967	1754
HLA-DQA1*03:02/DQB1*03:03	0	57	967	1754
HLA-DQA1*03:01/DQB1*03:04	0	101	1322	1355
HLA-DQA1*03:01/DQB1*03:05	0	49	1341	1388
HLA-DQA1*05:01/DQB1*03:05	0	401	1606	771
HLA-DQA1*03:01/DQB1*03:07	0	47	841	1890
HLA-DQA1*01:03/DQB1*03:19	0	279	1272	1227
HLA-DQA1*01:05/DQB1*03:19	0	38	913	1827
HLA-DQA1*05:05/DQB1*03:19	5	231	1108	1434
HLA-DQA1*03:01/DQB1*04:01	0	27	729	2022
HLA-DQA1*03:03/DQB1*04:01	0	27	729	2022
HLA-DQA1*04:01/DQB1*04:01	0	48	941	1789
HLA-DQA1*04:01/DQB1*04:02	0	48	941	1789
HLA-DQA1*01:01/DQB1*05:01	0	43	498	2237
HLA-DQA1*01:02/DQB1*05:02	0	38	590	2150
HLA-DQA1*01:01/DQB1*05:03	0	12	333	2433
HLA-DQA1*01:03/DQB1*06:01	0	111	1208	1459
HLA-DQA1*01:02/DQB1*06:02	0	123	1130	1525
HLA-DQA1*01:03/DQB1*06:02	0	178	1172	1428
HLA-DQA1*01:02/DQB1*06:03	0	4	264	2510
HLA-DQA1*01:03/DQB1*06:03	0	0	296	2482
HLA-DQA1*01:02/DQB1*06:08	0	7	508	2263
HLA-DQA1*01:02/DQB1*06:09	0	0	5	2773
HLA-DQA1*01:02/DQB1*06:10	0	5	760	2013
HLA-DQA1*01:02/DQB1*06:11	0	77	904	1797
HLA-DQA1*01:03/DQB1*06:11	0	134	1023	1621
HLA-DQA1*01:02/DQB1*06:14	0	0	395	2383

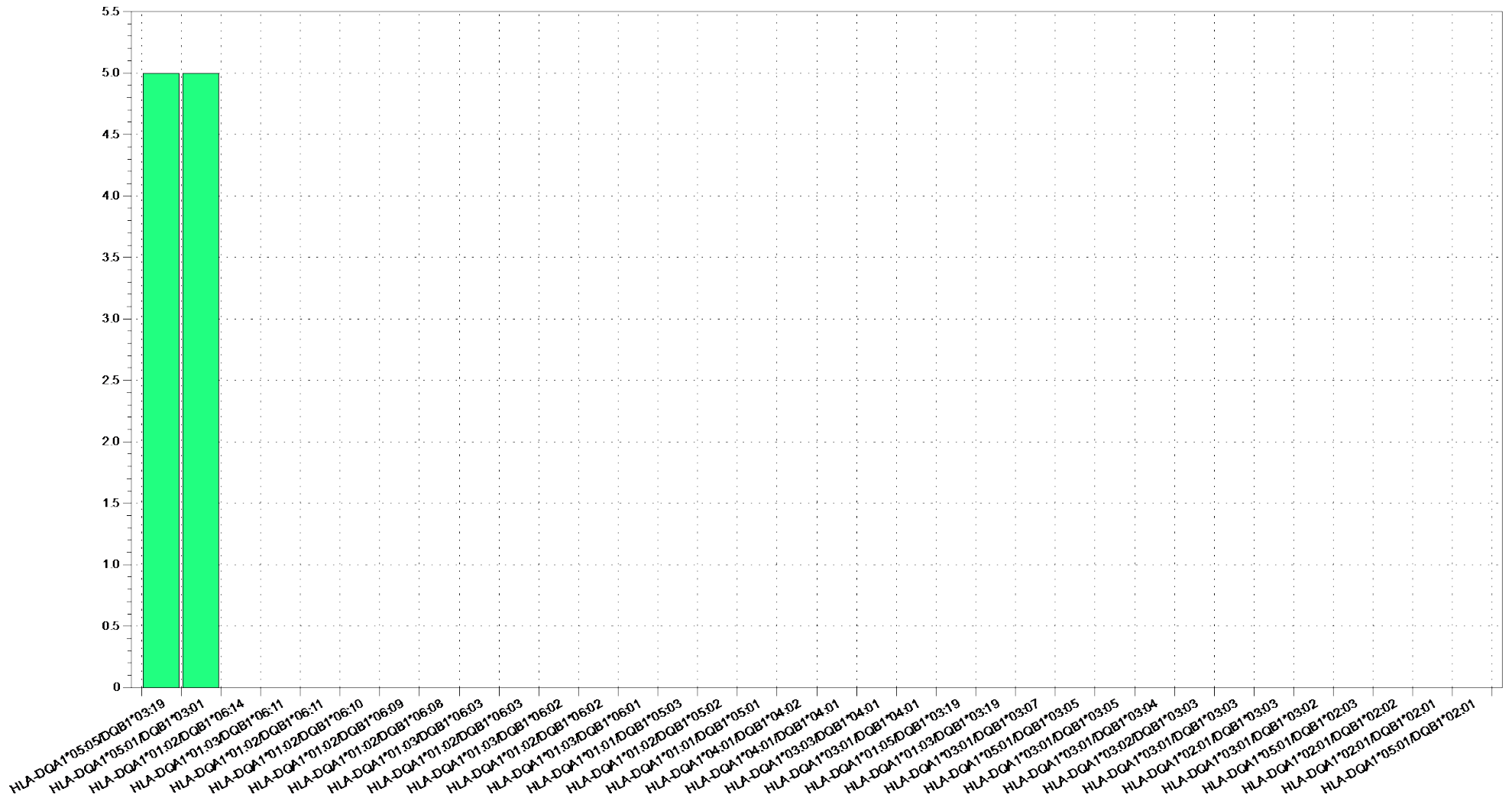
Allele combinations are ordered alphabetically.

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



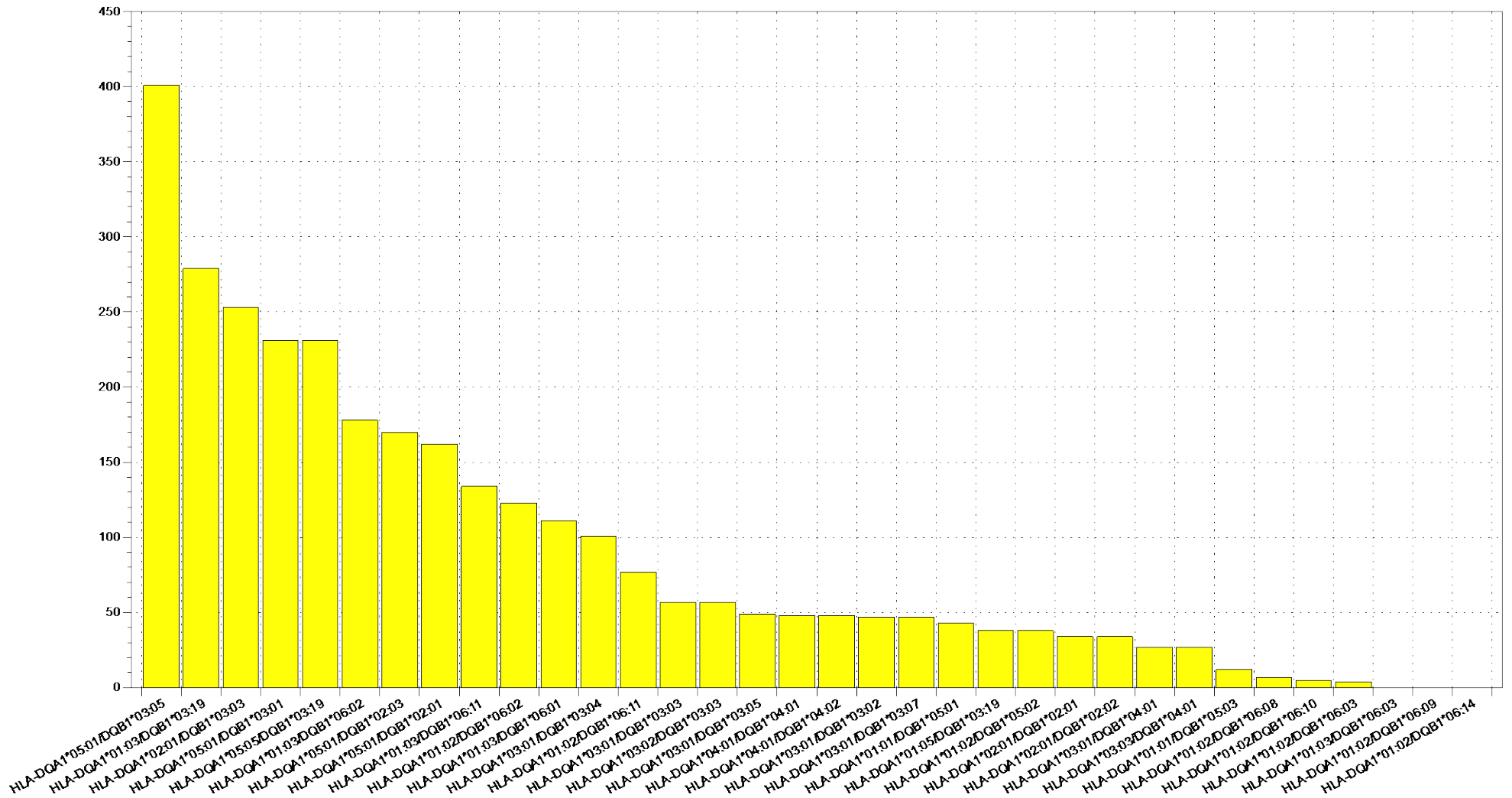
Allele combinations are ordered alphabetically on the x-axis, while the number of peptides binding with strong ($IC_{50} \leq 50$ nM), regular (50 nM $< IC_{50} \leq 1000$ nM) and weak (1000 nM $< IC_{50} \leq 5000$ nM) binding prediction are displayed on the y-axis.

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



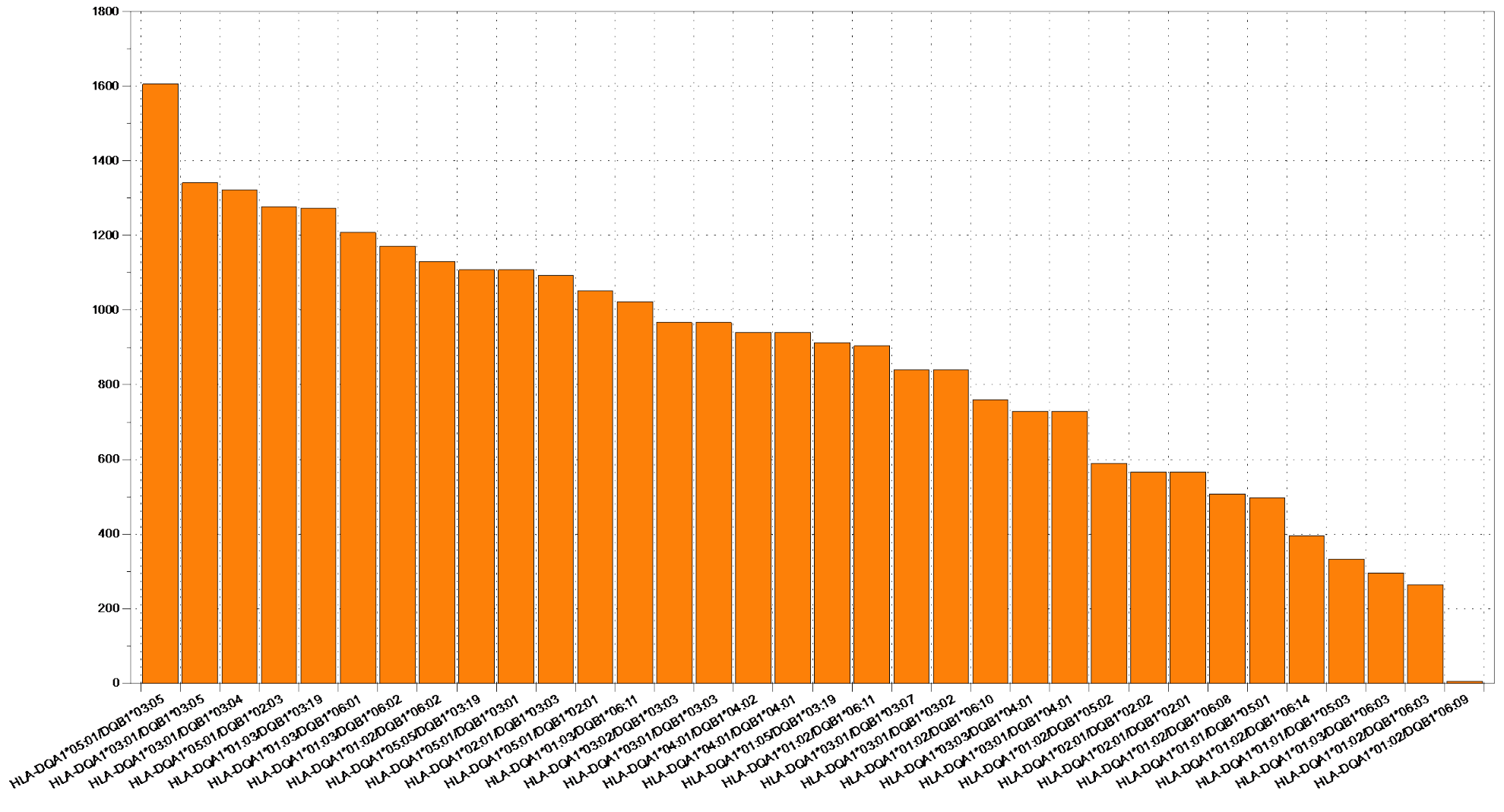
Allele combinations are ordered on the x-axis by their strong ($IC_{50} \leq 50$ nM) binding prediction and the number of peptides presented are displayed on the y-axis.

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.