

Supplementary Table S4. List of strongest (> 1% bound peptides at IC50 ≤ 50 nM) and weakest (> 99% bound peptides at IC ≥ 500 nM for Class I and IC50 ≥ 1000 nM for Class II) HLA binders for all viruses

#Viruses	Viruses	#Strongest	HLA strongest binders	#Weakest	HLA weakest binders
7	All viruses (CoV-1, CoV-2, MERS, H1N1, H3N2, H7N9, HIV-1)	16	A*02:02, A*02:03, A*02:06, A*02:11, A*02:12, A*02:22, A*31:04 B*15:03, B*15:17	121	A*01:01, A*01:02, A*01:03, A*01:06, A*02:07, A*25:01, A*25:02, A*26:01, A*26:03, A*26:05, A*26:12, A*26:18, A*36:01, A*43:01, A*66:01, A*66:03, A*74:01, A*74:03 B*08:03, B*08:04, B*08:05, B*13:02, B*13:03, B*13:04, B*14:01, B*14:02, B*14:03, B*15:04, B*15:08, B*15:09, B*15:10, B*15:11, B*15:13, B*15:18, B*15:21, B*15:24, B*15:58, B*18:01, B*18:02, B*18:03, B*18:05, B*18:07, B*27:02, B*27:03, B*27:04, B*27:14, B*35:02, B*35:03, B*35:04, B*35:06, B*35:09, B*35:12, B*37:01, B*38:01, B*38:02, B*39:05, B*39:06, B*40:01, B*40:06, B*40:10, B*40:12, B*42:02, B*44:02, B*44:03, B*44:04, B*44:05, B*44:06, B*44:07, B*44:15, B*45:01, B*46:01, B*47:01, B*47:03, B*48:01, B*48:03, B*48:04, B*49:01, B*50:01, B*50:02, B*51:01, B*51:02, B*51:04, B*51:05, B*51:06, B*51:07, B*51:08, B*51:09, B*52:01, B*53:02, B*54:01, B*55:01, B*55:07, B*55:12, B*56:01, B*58:02, B*59:01, B*73:01, B*78:01, B*78:02, B*81:01, B*82:01, B*82:02 C*01:02, C*01:03, C*04:01, C*04:03, C*04:04, C*04:05, C*04:06, C*04:07, C*05:01, C*07:04, C*07:07, C*07:08, C*07:11, C*08:02, C*17:03, C*18:01, C*18:02 DRB1*01:01, DRB1*01:04, DRB1*10:01, DRB1*11:02, DRB1*13:01, DRB1*13:04, DRB1*13:22 DRB1*03:02, DRB1*03:03
3	Only coronaviruses (CoV1, CoV-2, MERS)	15	A*02:01, A*02:05, A*02:09, A*02:14, A*02:24, A*02:26, A*02:34, A*02:35, A*02:40, A*24:03, A*24:10, A*24:23, A*68:02 C*14:02, C*14:03	1	B*27:05
6	All viruses but HIV-1 (only CoV-1, CoV-2, MERS, H1N1, H3N2, H7N9)	9	A*68:01, A*68:12 B*15:25, B*15:39, B*35:10 C*03:02 DRB1*07:01, DRB1*11:14, DRB1*13:02		
5	Only CoV-2, H1N1, H3N2, H7N9, HIV-1	7	DRB1*11:01, DRB1*11:09, DRB1*11:10, DRB1*11:12, DRB1*11:15, DRB1*11:28, DRB1*13:05	1	B*53:01
2	Only CoV-1, CoV-2	3	A*11:01, A*11:02, A*11:12	1	B*13:01
1	Only CoV-2	2	C*03:03, C*03:04	1	B*27:06
2	Only CoV-2, MERS	2	A*12:19, A*02:20		
4	Only H1N1, H3N2, H7N9, HIV-1	2	DRB1*11:03, DRB1*11:11	5	A*02:17, A*24:06, A*68:06 B*35:08, B*55:02
3	Only H1N1, H3N2, HIV-1	2	DRB1*11:04, DRB1*13:11		
4	Only CoV-1, CoV-2, MERS, HIV-1	1	A*23:04	3	B*07:04, B*27:08, B*44:09
5	Only CoV-1, CoV-2, MERS, H3N2, H7N9	1	B*48:02		
6	Only CoV-2, MERS, H1N1, H3N2, H7N9, HIV-1	1	DRB1*13:08		
1	Only H1N1	1	A*31:02		
3	Only H1N1, H3N2, H7N9	1	A*30:01	4	A*24:02, A*24:05, A*24:20, A*24:21
3	Only H1N1, H7N9, HIV-1	1	A*31:01		
3	Only CoV-2, MERS, H7N9	1	C*12:03		
6	Only CoV-1, CoV-2, MERS, H3N2, H7N9, HIV-1			1	B*57:02
1	Only CoV-1			1	B*40:03
3	Only CoV-1, CoV-2, HIV-1			1	A*30:08
3	Only CoV-1, MERS, HIV-1			1	C*06:06
4	Only CoV-1, MERS, H3N2, HIV-1			1	B*40:16
2	Only CoV-2, HIV-1			1	B*07:02
4	Only CoV-2, H3N2, H7N9, HIV-1			1	B*35:05
2	Only MERS, HIV-1			1	C*07:05
6	Only CoV-1, CoV-2, H1N1, H3N2, H7N9, HIV-1			2	A*24:04, A*30:04
3	Only H3N2, H7N9, HIV-1			2	B*56:02, B*56:04
2	Only H7N9, HIV-1			2	B*15:12, B*67:01
5	Only CoV-1, CoV-2, MERS, H3N2, HIV-1			4	C*06:02, C*07:01, C*07:06, C*07:18
5	Only CoV-1, H1N1, H3N2, H7N9, HIV-1			7	A*24:07, A*24:08, A*26:08, A*80:01 C*08:01, C*08:03, C*08:04
1	Only HIV-1			25	A*34:01, A*66:02 B*15:02, B*15:15, B*15:31, B*35:01, B*35:05, B*35:17, B*35:20, B*35:21, B*35:43, B*39:01, B*39:04, B*39:07, B*39:09, B*39:15, B*53:03, B*56:03 C*06:04, C*07:02, C*07:03, C*07:10, C*15:05, C*15:08, C*17:01
Total		65		187	