Table S9: HLA-I peptides identified from cancer associated proteins.

	Protein name	Uniprot	HLA-I peptide sequence	Immuno-genicity score	Cell line	HLA allele	Affinity (nM)
Shared tumor-specific antigens	MAGEA12	P43365	**KMAELVHFL**	**0.23721**	**JY**	**A*02:01**	**3**
	MAGEA1	P43355	**SAFPTTINF**	**0.20972**	**SupB15WT, SupB15RT**	**Cw*12:04**	**110**
			EVYDGREHSA	0.12941	SupB15WT, SupB15RT	n.d	n.d
	MAGEA3	P43357	**EVDPIGHLY**	**0.17836**	**HCT116**	**A*01:01;Cw*05:01**	**16;42**
	CCDC110	Q8TBZ0	QTDPDVHRNGKY	0.03625	HCT116	A*01:01;Cw*05:01	11;36
	CXorf61 (KKLC1)	Q5H943	LVRPSSSGL	-0.43101	HCC1937	B*07:02	39
Over-expressed in cancer	CCND1	P24385	**TPHDFIEHF**	**0.3755**	**HCC1143**	**B*3508**	**368**
			KETIPLTAEKL	**0.15805**	**HCC1937**	**B*40:01**	**23**
			NLRSPNNFLSY	-0.16889	Fibroblast	B*15:18	1570
	EPCAM	P16422	**DVDIADVAY**	**0.2578**	**HCC1143**	**B*35:08**	**127**
			AATATFAAA	**0.25585**	**HCC1937**	**Cw*03:04**	**1034**
			KPYDSKSLRTAL	-0.41754	HCC1937	B*07:02	9
	PLIN2	Q99541	**VASTITGVM**	**0.20422**	**SupB15WT, SupB15RT**	**Cw*1204**	**433**
			TSALPIIQK	**0.16066**	**Fibroblast, SupB15WT, SupB15RT**	**A*03;A*11**	**65;17**
			VMAGDIYSV	0.0939	HCT116	A*02:01	3
			SVASTITGV	0.06187	HCT116, JY	A*02:01	64
			VQKPSYYVR	-0.22474	HCC1143	A*31:01	7
			RAYQQALSR	-0.29975	Fibroblast	A*03:01	219
			SLLTSSKGQLQK	-0.64982	Fibroblast	A*03:01	35
	KIF20A	O95235	**RVFQGFFTGR**	**0.2312**	**Fibroblast, SupB15WT, SupB15RT**	**A*03;A*11**	**98;80**
			VYIESRIGTST	0.13085	Fibroblast	A*23:01	9506
			KEAGNINTSL	0.10011	HCC1937	B*40:01	19
			RSHSIFSIR	0.02197	HCC1143	A*31:01	5
			TLAELQNNMV	-0.1243	HCT116	A*02:01	37
			STQQLQEVK	-0.16538	SupB15WT, SupB15RT	A*11	50
			SEHLDTQKELL	-0.17904	HCC1937	B*40:01	60
			KLQGQVSAK	-0.1942	Fibroblast, SupB15WT, SupB15RT	A*03;A*11	33;95
			VHAPPMQLGF	-0.27886	Fibroblast	B*15:18	532
			ALRQNQQNR	-0.31664	HCC1143	A*31:01	454
			KLQGQVSAKK	-0.32481	SupB15WT	A*03	38
	WDR46	O15213	**ASETGFLTY**	**0.22808**	**HCT116**	**A*01:01**	**10**
			AEEEETSIKAA	0.07359	HCT116	B*45:01	12
			SQNPYNAVI	0.03419	HCC1599	Cw*07:01	376
			EEEETSIKA	0.00164	HCT116	B*45:01	16
			GTYQPLSTR	-0.25594	Fibroblast, SupB15WT, SupB15RT, HCC1143	A*03;A*11;A*31:01	185;128;33
	RhoC	P08134	**YPDTDVILM**	**0.21256**	**HCC1143**	**B*35:08**	**17**
			KTKEGVREV	**0.20479**	**HCC1143**	**Cw*06:02**	**2326**
			ATRAGLQVR	0.00509	HCC1143	A*31:01	41
			IEVDGKQVEL	-0.15698	HCC1937	B*40:01	27
			FSIDSPDSL	-0.18396	HCC1937	Cw*03:04	6
	CPSF1	Q10570	**FHVGAHVNTF**	**0.17318**	**Fibroblast**	**B*15:18**	**57**
			VADPYVVIM	0.1439	HCC1143	B*35:08	2621
			RENGTMEIYQL	0.05078	HCC1937	B*40:01	9
			IRPQVVTTF	0.01434	Fibroblast, HCC1937	n.d	n.d
			VVPEPGQPL	0.01401	HCC1937	Cw*03:04	139
			VSDRDRNLMVY	-0.00954	HCT116	A*01:01	9
			HLVSAIGQK	-0.02877	SupB15WT, SupB15RT	A*03	50
			YEAFPHDSQL	-0.03522	HCC1937	B*40:01	85
			RYIHPQQEAF	-0.04953	Fibroblast, HCC1937	A*23:01;A*24:02;Cw*07:02	43;63;80
			TLITDGMRSV	-0.08142	HCT116	A*02:01	110
			SVLPAYLSY	-0.08616	SupB15WT, SupB15RT	A*11	34
			ALDEKLLNI	-0.12563	HCT116	A*02:01	22
			GTSQLYVYR	-0.15186	HCC1143, SupB15WT,	A*11	40

					SupB15RT		
			RYQEESKTL	-0.1544	HCC1937	Cw*07:02	126
			RLGNSLLLK	-0.18289	Fibroblast, SupB15WT, SupB15RT	A*03;A*11	23;21
			SEAQSGTQL	-0.26798	HCC1937	B*40:01	17
	TP53	P04637	**VPYEPPEV**	**0.16281**	**SupB15WT, SupB15RT**	**B*51**	**107**
			RTEEENLRKK	0.13169	Fibroblast	A*03:01	2444
			EYLDDRNTF	0.10626	Fibroblast	A*23:01	100
			GLAPPQHLIRV	0.04156	JY	A*02:01	203
			TAKSVTCTY	-0.18255	SupB15WT, SupB15RT	Cw*12:04	1530
			TYSPALNKMF	-0.32825	Fibroblast, HCC1937	A*23:01;A*24:02	57;43
	BCL2L1	Q07817	**LHITPGTAY**	**0.15898**	**Fibroblast**	**B*15:18**	**24**
			IPMAAVKQAL	-0.21723	JY	B*07:02	12
	MDM2	Q00987	**SEQETLVRP**	**0.15559**	**HCT116**	**B*45:01**	**509**
			DEKQQHIVY	-0.13247	HCT116	B*18:01	4
			LLKSVGAQK	-0.19903	SupB15WT, SupB15RT	A*03	94
	SCRN1	Q12765	RPRDEVQEV	0.13622	HCC1937, JY	B*07:02	30
			TPDPSRSIF	-0.1782	HCC1143	B*35:08	224
	ENAH	Q8N8S7	IYHHTGNNTF	0.12498	HCC1937	A*23:01;A*24:02	87;29
			YHHTGNNTF	0.09369	Fibroblast	B*15:18	36
			KYNQATQTF	-0.1191	HCC1937	A*23:01;A*24:02	26;25
	DKK1	O94907	ALGGHPLLGV	0.0658	HCT116	A*02:01	35
			ILYPGGNKY	-0.07892	Fibroblast	A*03:01	81
	ALDH1A1	P00352	AEQTPLTAL	0.03584	HCC1937	B*40:01	13
	MMP2	P08253	VWSDVTPLRF	0.05706	Fibroblast	A*23:01	18
	CES2	O00748	AIMESGVAL	-0.02775	Fibroblast	Cw*07:04	2940
	PAX5	Q02548	SPVPNGHSL	-0.04152	JY	B*07:02	8
			GVIGGSKPK	-0.23391	SupB15WT, SupB15RT	A11	46
	MMP7	P09237	SSDPNAVMY	-0.04119	HCC1143	B*35:08	301
	MUC5AC	P98088	APTTSTNSA	-0.17502	HCT116	n.d	
	ERBB2	P04626	TFESMPNPEGRY	-0.17978	HCT116	B*18:01	4692

Table S9: HLA-I peptides identified from cancer associated proteins.

List of 82 HLA-I peptides identified in our dataset from 25 cancer associated proteins from which other immunogenic epitopes were previously reported. Known epitopes that we detected in our dataset are marked in red, and in bold are potential immunogenic peptides with predicted immunogenicity score higher than 0.15, which are the top 20% most immunogenic peptides. The suggested HLA-I alleles are indicated with their prediction binding scores in affinity kd values were generated using NetMHC 3.4 or NetMHCcons 1.0.