

Published Viral CD8+ T-cell Epitopes

To support clinicians and scientists worldwide in their virus research, we want to share a comprehensive list of the human, mouse, and mammal viral antigens recognized by CD8+ T cells. This list of virus-specific T-cell epitopes reflect the product portfolio of Immudex, and the research of many dedicated scientists published in peer-reviewed papers. You can now select the epitopes from the list that best fit your research within infectious disease and vaccine development.

If you are looking for COVID-19 epitopes, please have a look at our curated lists [here](#).

Allele	Species	Peptide	Antigen	Disease	Reference
HLA-A*0201	Human	FLDKGTYTL	BALF4	EBV	9
HLA-A*0201	Human	GLCTLVAML	BMLF1 ₂₅₉₋₂₆₇	EBV	1,4,5,7,9,10,26,41,58,64,65,67
HLA-A*0201	Human	TLDYKPLSV	BMRF1	EBV	27
HLA-A*0201	Human	YVLDHLIVV	BRLF1 ₁₀₉₋₁₁₇	EBV	4,9,27,46
HLA-A*0201	Human	LLDFVRFMGV	EBNA 3B	EBV	1,7,64
HLA-A*0201	Human	YLLEMLWRL	LMP-1	EBV	6,7,9,64
HLA-A*0201	Human	YLQQNWWTL	LMP1 ₁₅₉₋₁₆₇	EBV	4,6,9
HLA-A*0201	Human	CLGGLTMV	LMP-2A	EBV	1,4,6,9,27,58,64,65
HLA-A*0201	Human	FLYALALLL	LMP-2A	EBV	1,6,7,9,64
HLA-A*0301	Human	RLRAEAQVK	EMNA 3A	EBV	7,65
HLA-A*1101	Human	AVFDRKSDAK	EBNA 3B	EBV	7,66
HLA-A*1101	Human	IVTDFSVIK	EBNA 3B	EBV	7
HLA-A*2402	Human	DYCNVLNKEF	BRLF1	EBV	25,65
HLA-A*2402	Human	TYGPVFMCL	LMP-2	EBV	26
HLA-A*2902	Human	IACPVMRY	BRLF1	EBV	-
HLA-A*6801	Human	IVTDFSVIK	EBNA 3B	EBV	7
HLA-B*0702	Human	RPQGGSRPEFVK L	BMRF1	EBV	-
HLA-B*0702	Human	RPPIFIRRL	EBNA 3A	EBV	7,26
HLA-B*0702	Human	QPRAPIRPI	EBNA 6	EBV	7
HLA-B*0801	Human	RAKFKQLL	BZLF1	EBV	7,8,26,27,41
HLA-B*0801	Human	FLRGRAYGL	EBNA 3A	EBV	7,27
HLA-B*3501	Human	EPLPQGQLTAY	BZLF1	EBV	27
HLA-B*3501	Human	EPLSQSQITAY	BZLF1	EBV	-
HLA-B*3501	Human	HPVAEADYFEY	EBNA 1	EBV	28
HLA-B*3501	Human	HPVGDADYFEY	EBNA 1	EBV	28
HLA-B*3501	Human	HPVGEADYFEY	EBNA 1	EBV	25,27,28
HLA-B*3501	Human	HPVGQADYFEY	EBNA 1	EBV	28
HLA-B*3501	Human	YPLHEQHGM	EBNA 3A	EBV	16,27
HLA-A*0101	Human	VTEHDTLLY	UL44	CMV	3,7,19,27,29
HLA-A*0201	Human	VLEETSVML	IE-1	CMV	9
HLA-A*0201	Human	NLVPMVATV	pp65	CMV	2,3,5,9,10,14,32,41,52,64,65,83
HLA-A*0301	Human	KLGGALQAK	IE-1	CMV	3,7,65
HLA-A*2301	Human	QYDPVAALF	pp65	CMV	7,65
HLA-A*2301	Human	AYAQKIFKI	IE-1	CMV	7
HLA-A*2402	Human	AYAQKIFKI	IE-1	CMV	7
HLA-A*2402	Human	QYDPVAALF	pp65	CMV	3,7,65
HLA-A*2402	Human	VYALPLKML	pp65	CMV	3,65,66
HLA-B*0702	Human	RPHERNGFTVL	pp65	CMV	3,7,19,29,32
HLA-B*0702	Human	TPRVTGGGAM	pp65	CMV	3,7,29
HLA-B*0801	Human	ELKRKMIYM	IE-1	CMV	29,30
HLA-B*0801	Human	ELNRKMIYM	IE-1	CMV	30
HLA-B*0801	Human	ELRRKMMYM	IE-1	CMV	7
HLA-B*0801	Human	QIKVRVDMV	IE-1	CMV	31
HLA-B*3501	Human	IPSINVHHY	pp65	CMV	3,7

HLA-B*3501	Human	LPLNVGLPIIGV M	UL138	CMV	32
H-2Dd	Mouse	IPGRAFYA	Env	HIV	-
HLA-A*0201	Human	NVWATHACV	Env	HIV	-
HLA-A*0201	Human	SLLNATAIAV	Env	HIV	33
HLA-A*0201	Human	FLGKIWPS	Gag	HIV	11,34
HLA-A*0201	Human	RTLNAWVKV	Gag	HIV	7
HLA-A*0201	Human	SLFNTVATL	Gag	HIV	7,9
HLA-A*0201	Human	SLFNTVATLY	Gag	HIV	7
HLA-A*0201	Human	TLNAWVKV	Gag	HIV	24
HLA-A*0201	Human	VIYHYVDDL	Pol	HIV	-
HLA-A*0201	Human	ILKEPVHGV	RT	HIV	10,24,41,46
HLA-A*0201	Human	GLADQLIHL	Vif	HIV	34
HLA-A*0201	Human	SLVKHHMYI	Vif	HIV	35
HLA-A*0201	Human	ALVEMGHHA	Vpu	HIV	-
HLA-A*0201	Human	VIYQYVDDL	RT ₁₇₉₋₁₈₇	HIV	92
HLA-A*0301	Human	RLRPGGKKK	Gag	HIV	36,65
HLA-A*0301	Human	QVPLRPMTYK	NEF	HIV	36,38,65
HLA-A*1101	Human	AVDLSHFLK	NEF	HIV	37
HLA-A*2402	Human	RYLKDQQLL	Env	HIV	38
HLA-A*2402	Human	RYLRDQQLL	Env	HIV	39,65
HLA-A*2402	Human	RYPLTFGWCF	NEF	HIV	24
HLA-A*2902	Human	SFDPIPHY	Env	HIV	-
HLA-A*2902	Human	SFNCRGEFFY	Env	HIV	-
HLA-A*2902	Human	LYNTVATLY	Gag	HIV	40
HLA-B*0702	Human	GPGHKARVL	Gag-Pol	HIV	24
HLA-B*0702	Human	TPGPGVRYPL	NEF	HIV	41
HLA-B*0801	Human	YLKDfQQLL	Env	HIV	-
HLA-B*0801	Human	DIYKRWII	Gag	HIV	42
HLA-B*2705	Human	GRAFVTIGK	Env	HIV	43
HLA-B*2705	Human	KRWIILGLNK	Gag	HIV	19
HLA-B*2705	Human	KRWIILGLNKIN R	Gag	HIV	19
HLA-B*2705	Human	KRWIILGLNKIV R	Gag	HIV	19
HLA-B*2705	Human	RRWIQLGLQK	Gag	HIV	19
HLA-B*2705	Human	KRWIIMGL	Gag	HIV	19
HLA-B*3501	Human	VPLDEDFRKY	RT	HIV	36
HLA-A*0201	Human	SLYNTVATL	gag ₇₇₋₈₅	HIV	4,11,24,33,36,41
HLA-B*2705	Human	KRWILLGLNK	P24 gag	HIV	2
Mamu-A*01	Monkey	CTPYDINQM	Gag	SIV	20
Mamu-A*08	Monkey	KPCVKLTTP	gp100	SIV	44
H-2 Dk	Mouse	RRLGRTL	Middle T antigen	Virus	45
H-2 Kb	Mouse	FAPGNYPAL	NP	Virus	46
H-2 Kb	Mouse	VIYIFTVRL	VACCL3_100	Virus	-
H-2 Kb	Mouse	RGYVYQGL	NP52	Virus	17
H-2 Kd	Mouse	SYIGSINNI	M2-1	Virus	47
H-2 Ld	Mouse	SPSYVYHQF	AH-1	Virus	15
HLA-A*0101	Human	SADNNNSEY	VP1	Virus	48
HLA-A*0201	Human	FILGIITV	V131	Virus	-
HLA-A*0201	Human	SMYRVFEVGV	H250	Virus	49
HLA-A*0201	Human	LLLIWFRPV	Large T antigen	Virus	50
HLA-A*0201	Human	VIFDFLHCI	Large T antigen	Virus	51
HLA-A*0201	Human	LLWNGPMAV	Polyprotein	Virus	41
HLA-A*0201	Human	LLLNCLWSV	Spike GP	Virus Human corona virus 229E	52
HLA-A*0201	Human	AITEVECFL	VP1	Virus	50,53
HLA-A*0201	Human	LIDQYLYL	VP1	Virus	48
HLA-A*0201	Human	LLMWEAVTV	VP1	Virus	50,53

HLA-A*0201	Human	ILMWEAVTL	VPI Polyomav. 1	Virus	9,53
HLA-A*0201	Human	SITEVECFI	VPI	Virus	53
HLA-B*0702	Human	APKKKPEPV	VP1	Virus	54
HLA-B*0702	Human	APTKRKGEC	VP1	Virus	54
HLA-B*0702	Human	GPLCKADSL	VP1	Virus	54
HLA-B*0702	Human	NPTAQSQVM	VP1	Virus	54
HLA-B*0702	Human	SPERKMLPC	VP1	Virus	54
HLA-B*0702	Human	VPQYGYLTL	VP1	Virus	48
H-2 Kb	Mouse	TSYKFESV	B8R	Vaccinia	91
H-2 Db	Mouse	ASNENMDAM	NP	Influenza A/H3N2	55, 56
H-2 Db	Mouse	ASNENMETM	NP	Influenza	12,55
H-2 Db	Mouse	SCLNFRAYV	PolA	Influenza A/H5N1	56
H-2 Db	Mouse	SLENFRAYV	PolA	Influenza A/H5N1	56
H-2 Kd	Mouse	IYSTVASSL	ND	Influenza/PR8 virus	57
HLA-A*0101	Human	VSDGGPNLY	PB1 ⁵⁹¹⁻⁵⁹⁹	Influenza	13,19,60
HLA-A*0101	Human	CTELKLSDY	NP	Influenza	58
HLA-A*0201	Human	KLGEFYQMM	BNP	Influenza	59
HLA-A*0201	Human	GILGFVFTL	MP	Influenza	7,9,13,14,41,46,60 ,64
HLA-A*0201	Human	ILGFVFTLV	MP	Influenza	60,65
HLA-A*0201	Human	LVWMACHSA	Nucleocapsid	Influenza	61
HLA-A*0301	Human	ILRGSVAHK	NP ²⁶⁵⁻²⁷³	Influenza	13,60,65
HLA-B*0801-	Human	ELRSRYWAI	NP ³⁸⁰⁻³⁸⁸	Influenza	13,19
HLA-B*2705	Human	RRSGAAGAAVK	NP ¹⁷⁴⁻¹⁸⁴	Influenza	13
H-2 Db	Mouse	RAHYNIVTF	E7	HPV	18,63
H-2 Db	Mouse	AGVDNRECI	L1	HPV	62
H-2 Kb	Mouse	EVYDFAFRDL	E6	HPV	63
HLA-A*0201	Human	LLMGTLGIVC	E7	HPV	64
HLA-A*0201	Human	MLDLQPETT	E7	HPV	7
HLA-A*0201	Human	YMLDLQPETT	E7	HPV	9,64
HLA-A*0301	Human	KLCLRFLSK	E6	HPV	65
HLA-A*1101	Human	NTLEQTVKK	E6	HPV	66
HLA-B*0702	Human	KPTLKEYVL	E7	HPV	-
HLA-A*0201	Human	AVLDGLLSL	bZIP factor	HTLV	-
HLA-A*0201	Human	GLLSLEEEL	bZIP factor	HTLV	67
HLA-A*0201	Human	LLFGYPVYV	Tax	HTLV	7,67
HLA-A*2402	Human	SFHSLHLLF	Tax	HTLV	65

HLA-B*0702	Human	LPVSCPEDL	bZIP factor	HTLV	-
HLA-A*0201	Human	RLATGLRNV	HA	H1N1	14
H-2 Db	Mouse	AGPHNDMEI	p56	HSV	68
H-2 Kb	Mouse	SSIEFARL	gp	HSV	69
H-2 Kd	Mouse	TYWPVVSDI	UL105	HSV	70
HLA-A*0201	Human	LMWYELSKI	gp	HSV	71,72
HLA-A*0201	Human	LLNGWRWRL	ND	HSV	71,72
HLA-A*0201	Human	AMLVLLAEI	LANA	HSV	72
HLA-A*0201	Human	QMARLAWEA	LANA	HSV	71
H-2 Db	Mouse	CSANNSHHYI	gp	LCMV	73
H-2 Db	Mouse	KAVYNFATC	gp	LCMV	74
H-2 Db	Mouse	SGVENPGGYCL	gp	LCMV	74
H-2 Db	Mouse	FQPQNGQFI	NP396	LCMV	74
H-2 Kb	Mouse	ISHNFCNL	gp	LCMV	74
H-2 Ld	Mouse	RPQASGVYM	NP	LCMV	75
HLA-A*0201	Human	ALPHIIDEV	ND	LCMV	76
HLA-A*0201	Human	SLNQTVHSL	ND	LCMV	76
HLA-A*0201	Human	YLVSIFLHL	ND	LCMV	76

H-2 Db	Mouse	HGIRNASFI	M45	MCMV	77
H-2 Dd	Mouse	AGPPRYSRI	M164	MCMV	70
H-2 Kb	Mouse	TVYGFCLL	m139	MCMV	77
H-2 Kb	Mouse	VIDAFSRL	m141	MCMV	77
H-2 Kb	Mouse	STYTFVRT	M38	MCMV	77
H-2 Kb	Mouse	SCLEFWQRV	M57	MCMV	77
H-2 Kd	Mouse	CYYASRTKL	m145	MCMV	77
H-2 Kb	Mouse	TSINFVKI	P79	MHV	68
HLA-A*0201	Human	LLWNGPMAV	NS4B214-222	YF	21,41
H-2 Kk	Mouse	TEWETGQI	ASP-2	YF	90
HLA-A*0201	Human	FLSFASLFL	EBOV	Ebola	22
HLA-A*2301	Human	AYQGDYKLF	EBOV	Ebola	22
HLA-A*2301	Human	FPQLSAIAL	EBOV	Ebola	22
H-2 Kb	Mouse	TELRTFSI	EBOV GP	Ebola	23
H-2 Kb	Mouse	MGLKFRQL	CP	Hepatitis	78
H-2 Kb	Mouse	VWLSVIWM	HBsAg	Hepatitis	79
H-2 Kb	Mouse	AGLAYYSM	Polyprotein	Hepatitis	-
HLA-A*0101	Human	ATDALMTGY	Polyprotein	Hepatitis	80
HLA-A*0201	Human	FLPSDFFPSV	CP	Hepatitis	81,83
HLA-A*0201	Human	CINGVCWTV	NS3	Hepatitis	82,84
HLA-A*0201	Human	GLSRVVARL	Polymerase	Hepatitis	83
HLA-A*0201	Human	KLHLYSHPI	Polymerase	Hepatitis	83
HLA-A*0201	Human	ALYDVVTKL	Polyprotein	Hepatitis	82,84
HLA-A*0201	Human	CVNGVCWTV	Polyprotein	Hepatitis	84,85
HLA-A*0201	Human	GVDPNIRTGV	Polyprotein	Hepatitis	85
HLA-A*0201	Human	KLVALGINAV	Polyprotein	Hepatitis	84,85
HLA-A*0201	Human	FLLTRILTI	S protein	Hepatitis	83
HLA-A*0201	Human	GLSPTVWLSV	S protein	Hepatitis	83
HLA-A*0201	Human	WLSLLVPFV	S protein	Hepatitis	83
HLA-A*0301	Human	VTLTHPITK	Polyprotein	Hepatitis	83
HLA-B*0801	Human	HSKKKCDL	Polyprotein	Hepatitis	80
HLA-B*2705	Human	ARMILMTHF	Polyprotein	Hepatitis	80
HLA-B*3501	Human	LPSDFFPSV	CP	Hepatitis	81
HLA-B*5101	Human	LPSDFFPSV	CP	Hepatitis	81
HLA-B*5101	Human	IPFYGKAI	Polyprotein	Hepatitis	86

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Allele	Species	Peptide	Antigen	Disease	Reference
DRB1*0101	Human	LPLKMLNIPSINVH	pp65	CMV	87
DRB1*0401	Human	LPLKMLNIPSINVH	Pp65	CMV	
DRB1*1101	Human	EHPTFTSQYRIQGKL	pp65	CMV	89
DRB1*0101	Human	TSLYNLRRTGALA	EBNA1	EBV	88
DRB1*0101	Human	PEQWMFQGAPPSQGT	EBNA3A	EBV	-
DRB1*0401	Human	GQTYHLIVDTSLSGNPSLSV	EBNA2	EBV	-
DRB1*0101	Human	PKYVKQNTLKLAT	HA	Influenza	87,88
DRB1*0401	Human	PKYVKQNTLKLAT	HA	Influenza	87,88
DRB1*0701	Human	PKYVKQNTLKLAT	HA	Influenza	
DRB1*1101	Human	PKYVKQNTLKLAT	HA	Influenza	87,88
DRB1*0301	Human	SFLLTDLINRRTPRVDGQ	VP1 ₂₉₅₋₃₁₂	Virus	-
DRB1*0301	Human	SRYFKVQLRKRVRKNP	VP1 ₂₇₆₋₂₉₁	Virus	-
DRB1*0701	Human	DEHLRGFSKISISDTE	VP1 ₅₂₋₆₉	Virus	-
DRB1*1101	Human	SQQWRGLSRYFKVQLRK	VP1 ₂₆₉₋₂₈₅	RSV Virus	-

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