



Antigen List

CTL ePBMC® have been immune characterized in ImmunoSpot® ELISPOT system for the following antigens

Class I CEF Peptide List:

CEF #	Virus	Antigen Source	Epitope Sequence	HLA Restrictions
CEF32-01	Influenza	PB1 (591-599)	VSDGGPNLY	A1
CEF32-02	Influenza	NP(44-52)	CTELKLSDY	A1
CEF32-03	Influenza	M1 (58-66)	GILGFVFTL	A2
CEF32-04	Influenza	PA (46-54)	FMYSDFHFI	A2
CEF32-05	EBV	LMP2A (426-434)	CLGGLLTMV	A2
CEF32-06	EBV	BMLF1 (259-267)	GLCTLVAML	A2
CEF32-07	HCMV	pp65 (495-503)	NLVPMVATV	A2
CEF32-08	Influenza	NP (91-99)	KTGGPIYKR	Aw68
CEF32-09	Influenza	NP (342-351)	RVLSEFIKGTK	A3
CEF32-10	Influenza	NP(265-273)	ILRGSVAHK	A3
CEF32-11	EBV	BRLF1 (148-156)	RVRAYTYSK	A3
CEF32-12	EBV	EBNA 3a (603-611)	RLRAEAQVK	A3
CEF32-13	Influenza	M1 (13-21)	SIIPSGPLK	A11
CEF32-14	EBV	EBNA 3b (399-408)	AVFDRKSDAK	A11
CEF32-15	EBV	EBNA 3b (416-424)	IVTDFSVIK	A11
CEF32-16	EBV	BRLF1 (134-143)	ATIGTAMYK	A11
CEF32-17	EBV	BRLF1 (28-37)	DYCNVLNKEF	A24
CEF32-18	Influenza	NP (418-426)	LPFDKTTVM	B7
CEF32-19	EBV	EBNA 3a (379-387)	RPIFIRRL	B7
CEF32-20	Influenza	NP (380-388)	ELRSRYWAI	B8
CEF32-21	EBV	BZLF1 (190-197)	RAKFKQLL	B8
CEF32-22	EBV	EBNA 3a (325-333)	FLRGRAYGL	B8
CEF32-23	EBV	EBNA 3a (158-166)	QAKWRLQTL	B8
CEF32-24	HCMV	pp65 (378-389)	SDEEEAIVAYTL	B18
CEF32-25	Influenza	NP (383-391)	SRYWAIRTR	B27
CEF32-26	Influenza	M1 (128-135)	ASCMGLIY	B27
CEF32-27	EBV	EBNA 3c (258-266)	RRIYDLIEL	B27
CEF32-28	EBV	EBNA 3a (458-466)	YPLHEQHGM	B35
CEF32-29	HCMV	pp65 (123-131)	IPSINVHHY	B35
CEF32-30	EBV	EBNA 3c (281-290)	EENLLDFVRF	B44
CEF32-31	HCMV	pp65 (511-525)	EFFWDANDIY	B44
CEF32-32	HCMV	pp65 (417-426)	TPRVTTGGAM	B7

Total of 5
Total of 12
Total of 15

CMV peptides
Influenza peptides
EBV peptides



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Class II CEFT Peptide List (only a few PBMC lots have been tested for these peptides)

CEF #	Epitope	Sequence	HLA Restrictions
CEFT-01	INFLUENZA A	FVFTLTVPSER	DR4
CEFT-02	INFLUENZA A	SGPLKAEIAQRLEDV	DR1
CEFT-03	INFLUENZA A	YDVPDYASLRSLVASS	DR1
CEFT-04	INFLUENZA B	PYYTGEHAKAIGN	DR1
CEFT-05	TETANUS	GQIGNDPNRDIL	DR3, DR52c, DR52a
CEFT-06	INFLUENZA A	PKYVKQNTLKLA	DRB1*0101
CEFT-07	INFLUENZA A	PKYVKQNTLKLAT	DR4
CEFT-08	INFLUENZA A	DRLRRDQKS	DR3
CEFT-09	EBV	AGLTLSELLVICSYLFISRG	DR15
CEFT-10	TETANUS	QYIKANSKFIGITEL	DR15, DR13, DR5, DR11, DR9, DR8, DR7, DR3
CEFT-11	TETANUS	QYIKANSKFIGITE	DR5, DR11, DRB1*1302, DRB1*1104
CEFT-12	TETANUS	FNNFTVSFWRVLPKVSASHLE	DR11, DR7, DRB1*1101, DR5, DPw2
CEFT-13	EBV	TSLYNLRRGTALA	DR1
CEFT-14	TETANUS	KFIIKRYTPNNEIDSF	DRB1*1104, DRB1*1101
CEFT-15	TETANUS	VSIDKFRIFCKALNPK	DRB1*1101
CEFT-16	EBV	VPGLYSPCRAFFNKEELL	DRB1*0701
CEFT-17	CMV	DKREMWMACIKELH	DRB1*0801
CEFT-18	EBV	TGHGARTSTEPTDY	DRB3*0201
CEFT-19	EBV	KELKRQYEKKLRQ	DRB3*0201, DRB1*0301
CEFT-20	INFLUENZA A	RGYFKMRTGKSSIMRS	DRB1*1001, DQA1*0102
CEFT-21	EBV-E-bna-2	TVFYNIPPMPL	DQ2
CEFT-23	NUCLEAR ANTIGEN TYPE I 48	AEGLRALLARSHVER	DR4
CEFT-24	EBV-E-bna-1	PGPLRESIVCYFMVFLQTHI	DR7
CEFT-25	HCMV PP65 (509-519)	KYQEFFWDAND	DRA*0101, DRB1*0101
CEFT-26	CLASS II EBV BHRF (122-133)	PYYVVDLSRGM	DRA*0101, DRB1*0401
CEFT-27	CLASS II SELF PEPTIDE	GSDWRFLRGYHQYA	DRA*0101, DRB1*0101

Protein Antigens:

Proteins	HLA Restriction
Candida	Class II
PPD	Class II
Mosquito	Class II
Dust Mite	Class II
Mumps	Class II
CMV Gr2 Antigen	Class II
Tetanus Toxoid	Class II
EBV	Class II
HPV(protein6)	Class II
PHA	Class I and Class II
CPI Ag Pool	Class II

Peptide Pools:

Peptide Pools	HLA Restriction
CEFP23 Classic Pool of 23 peptides	Class I
CEFP32 Plus Pool of 32 peptides	Class I
FLU Pool of 12 peptides from the CEFp32	Class I
CMV Pool of 5 peptides from the CEFp32	Class I
EBV Pool of 15 peptides from the CEFp32	Class I
CEFTp23 Pool of 23 peptides	Class II
HCMVpp65 Peptide Pool, 138 peptides	Class I and Class II
CEFX Ultra SuperStim Pool of 176 peptides	Class I and Class II

Custom immune characterizations are available upon request. Please contact CTL for further information at info@immunospot.com or pbmc@immunospot.com