Position 156 influences the peptide repertoire and tapasin dependency of human leukocyte antigen B*44 allotypes

Soumya Badrinath,¹ Philippa Saunders,² Trevor Huyton,¹ Susanne Aufderbeck,¹ Oliver Hiller,¹ Rainer Blasczyk,¹ and Christina Bade-Doeding¹

¹Institute for Transfusion Medicine, Hannover Medical School, Hannover, Germany, and ²Department of Microbiology and Immunology, The University of Melbourne, Parkville, Victoria, Australia

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Online Supplementary Table S1. Peptides from sHLA-B*44 variants.

1A)

HLA-B*44:02 (origin: LCL 721.221 cells)
Low affinity binding peptides (before TFA)

Peptide position

1 2 3 4 5 6 7 8 9 10 11 12

Li	gand	s										Source
Т	E	V	т	G	Н	R	W					Isof. 1 of Basigin precursor
S	E	L	E	K	T	F	G	W				Isof. Sp140 of Nuclear body prot. SP140
S	E	D	E	I	K	K	A	Y				DnaJ homolog subfamily C member 7
Α	E	E	L	E	R	Q	G	Y				199 kDa prot.
A	E	I	R	S	L	V	T	W				Interferon-induced prot. with tetratricopeptide repeats 3
Α	E	K	A	V	T	K	E	E	F			similar to 40S ribosomal prot. SA
Α	E	D	S	V	М	D	Н	Н	F			Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot.
E	E	D	A	A	L	F	K	А	W			Isof. 2 of Interferon regulatory factor 4
Α	E	K	N	A	P	Α	I	I	F			Transitional endoplasmic reticulum ATPase
E	E	A	D	G	G	L	K	S	W			F-actin capping prot. subunit alpha-1
N	E	D	N	G	I	I	K	Α	F			60S ribosomal prot. L4
G	E	D	V	E	T	S	K	K	W			Isof. 2 of Endothelial differentiation-related factor 1
V	E	D	P	T	N	D	Н	I	Y			Isof. 1 of Activating signal cointegrator 1 complex subunit 3
E	E	V	Н	D	L	E	R	K	Y			20 kDa prot.
Q	E	L	Q	E	I	N	R	V	Y			Similar to annexin A2 isof. 1
Α	E	M	N	R	G	S	N	E	W			Cytochrome c oxidase subunit 4 isof. 1, mitochondrial precursor
Ε	E	V	D	L	S	K	D	Ι	Q	Н	M	Ribonucleoside-diphosphate reductase M2 chain

This table shows peptides from sHLA-B*44:02 molecules, that are defined as low affinity peptides. The peptides are derived from LCL 721.221 cells that have functional TPN: 17 single peptides have been recovered.

HLA-B*44:02 (origin: LCL 721.221 cells) High affinity binding peptides (after TFA)

Peptide position

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Li	gano	is							Source
s	Е	E	D	L	K	V	L	F	Isof. 1 of Polypyrimidine tract-binding prot. 1
Q	E	$_{\rm L}$	F	L	Α	Н	I	$_{\rm L}$	Poly [ADP-ribose] polymerase 1
E	E	Α	E	I	I	R	K	Y	Poly [ADP-ribose] polymerase 1
T	E	V	I	Н	Α	D	R	W	PIF1 DNA helicase isof. beta
A	E	M	L	R	S	I	S	F	Cleavage stimulation factor 50 kDa subunit
I	E	H	G	I	I	T	N	W	Actin, alpha 1, skeletal muscle
S	E	Α	N	V	R	E	I	F	Transitional endoplasmic reticulum ATPase
A	Е	V	K	G	V	Y	Q	F	Transmembrane emp24 domain-containing prot. 3 precursor
A	Ε	N	$_{\rm L}$	F	R	A	F	$_{\rm L}$	Isof. 1 of DNA-dependent prot. kinase catalytic subunit
E	E	N	P	I	V	L	E	F	Kanadaptin
A	E	E	L	E	R	Q	G	Y	199 kDa prot.
T	E	L	D	Q	V	R	K	W	PCI domain-containing prot. 1
R	E	I	S	K	E	A	S	Н	Isof. 2 of Dystrophin
S	E	S	N	F	Α	R	A	Y	16 kDa prot.
V	Ε	K	A	P	Q	E	\mathbf{T}	Y	26S protease regulatory subunit 4
A	E	G	D	L	I	E	Н	F	Heterogeneous nuclear ribonucleoprot. A0
A	E	D	E	L	F	N	R	Y	NUP107 prot.
S	E	Α	S	R	L	Α	Н	Y	Histone H2B type 1-L
E	E	I	N	E	V	K	T	W	16 kDa prot.
S	Ε	S	D	L	N	Н	S	F	Ubiquitin-conjugating enzyme E2 J1
V	Ε	L	V	т	Q	Q	М	W	183 kDa prot.
S	Е	D	Ε	I	K	K	А	Y	DnaJ homolog subfamily C member 7
I	E	S	V	I	K	E	L	W	PAP associated domain containing prot. 5
E	E	L	Y	т	K	K	L	W	HSPC027
A	E	T	D	A	I	R	F	L	Prot. TSSC1 (Fragment)
N	E	P	Y	I	F	K	V	F	Novel prot.
А	E	Α	F	L	E	Н	L	W	Hypothetical prot. A-270G1.1
V	E	D	E	L	V	K	K	Y	Isof. 1 of Bromodomain adjacent to zinc finger domain prot. 1
S	E	D	G	T	V	R	I	W	Coatomer subunit beta
М	E	Q	V	I	F	K	Y	L	Actin-like prot. 3
М	E	I	G	K	Т	E	T	F	Breast cancer type 2 susceptibility prot.
S	E	L	E	K	T	F	G	W	Isof. LYSp100-A of Nuclear body prot. SP140
А	E	I	E	D	I	R	V	L	Isof. 3 of M-phase phosphoprot. 1
S	E	Н	S	I	I	K	D	F	DNA replication licensing factor MCM5
L	E	Q	G	Н	T	R	Q	W	Isof. 2 of E3 ubiquitin-prot. ligase MARCH6
Α	D	G	I	V	S	K	N	F	40S ribosomal prot. S21
S	E	N	D	V	I	R	L	I	Serine/threonine-prot. kinase 17B
S	E	I	E	S	N	R	S	F	Isof. Al of Tight junction prot. ZO-2
A	E	F	K	E	A	F	Q	L	Isof. Non-muscle of Myosin light polypeptide 6
S	E	D	G	L	L	K	L	W	Smu-1 suppressor of mec-8 and unc-52 prot. homolog
E	E	A	S	L	L	Н	Q	F	spectrin, beta, non-erythrocytic 1 isof. 2
S	E	I	E	N	V	Н	G	F	18 kDa prot.
Α	E	I	E	I	V	K	D	L	Isof. 2 of Prolyl 4-hydroxylase subunit alpha-1 precursor
E	E	G	P	D	٧	L	R	W	Sec23 homolog B
S	Ε	N	P	A	K	R	L	Y	Isof. 1 of Putative methyltransferase WBSCR22
S	Ε	S	Ε	L	T	R	L	L	Isof. UBF1 of Nucleolar transcription factor 1
A	E	I	I	K	G	E	L	W	OTTHUMP0000017057
Q	Ε	А	G	I	K	Т	A	F	Multifunctional prot. ADE2
S	Ε			L					GMP reductase 2
Т	E			K					14 kDa prot.
									continued on the ne

	Ε	G	I	Н	Т	G	Q	F		60S ribosomal prot. L8
S		S								Sad1/unc-84-like prot. 2
V	Ε	I	N	I	D	Н	K	F		CDNA FLJ45936 fis, clone PLACE7004103, highly similar to Vigi
E	E	G	L	V	Н	N	G	W		DNA repair prot.
М	E	М	G	A	Α	K	V	W		Peroxisomal membrane prot. PEX16
S	E	D	G	K	I	Н	V	W		WD40 prot.
T	E	Q	T	A	P	K	I	F		Prot. disulfide-isomerase precursor
N	E	S	E	Ε	V	R	Q	F		Calpain small subunit 1
S	E	F	E	L	L	R	S	Y		Sorting nexin-4
		K								Transforming acidic coiled-coil-containing prot. 3
		L								BolA-like prot. 2 isof. a
		P								Uncharacterized prot. C14orf119
		I							=	polymerase (RNA) I polypeptide A, 194kDa
		A								Eukaryotic translation initiation factor 3 subunit 7
		A P								polymerase (RNA) I polypeptide A, 194kDa Uncharacterized prot. C14orf119
		D								Isof. 1 of Activating signal cointegrator 1 complex subunit 3
		I								Isof. 1 of Regulator of nonsense transcripts 3B
		I								39S ribosomal prot. L13, mitochondrial
		М								Coiled-coil domain-containing prot. 72
		E								Poly [ADP-ribose] polymerase 1
A	E	М	A	Q	N	Α	V	R	L	46 kDa prot.
I	E	D	P	Q	I	Q	A	Н	W	CRSP complex subunit 6
T	E	L	E	R	Α	F	G	Y	Y	Splicing factor, arginine/serine-rich 3
A	E	I	D	A	R	N	D	S	F	spectrin, beta, non-erythrocytic 1 isof. 2
A	E	F	K	E	A	F	Q	L	F	Isof. Non-muscle of Myosin light polypeptide 6
N	E	D	N	G	I	I	K	A	F	60S ribosomal prot. L4
A	Ε	A	D	K	T	I	K	٧	Y	Isof. 1 of Pleiotropic regulator 1
A	E	V	D	K	V	Т	G	R	F	40S ribosomal prot. S21
N	E	М	Q	P	N	G	K	V	F	Isof. Long of Long-chain-fatty-acidCoA ligase 4
L	E	I	K	K	I	G	D	Е	Y	chaperonin containing TCP1, subunit 3 isof. b
А	Ε	G	T	E	E	G	Α	R	W	Isof. OS-9-2 of Prot. OS-9 precursor
A	E	М	D	Q	I	L	Н	G	L	Argininosuccinate lyase
E	Ε								Y	Isof. 3 of Sigma 1-type opioid receptor
		I	A	Q	L	A	R	Q		
E	Ε	D							W	Isof. 2 of Interferon regulatory factor 4
			А	A	L	F	K	Α		Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103
A Q	E E	D L T	A Y S	A I F	L N T	F E K	K H E	A D A	Y Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot.
A Q	E E	D L	A Y S	A I F V	L N T M	F K D	K H E H	A D A H	Y Y F	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot
A Q A G	E E E	D L T D	A Y S S	A I F V E	L N T M	F E K D	K H E H	A D A H K	Y Y F W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1
A Q A G	E E E E	D L T D E	A Y S V S	A I F V E	L N T M T	F E K D S	K H E H K	A D A H K	Y Y F W Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot.
A Q A G A	E E E E	D L T D E G	A Y S V S D	A I V E D	L N T M T L	F E K D S	K H E H K R	A D A H K Q	Y Y F W Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot.
A Q A G A S	EEEEE	D L T D E G	A Y S V S D L	A F V E D I	L N T M T L	F E K D S S Q K	K H E H K R	A D A H K Q G L	Y Y F W Y Y W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027
A Q A G A S L	E E E E E E E	D L T D E G E	A Y S V S D L	A I V E D I Y	L N T T T T	F E K D S S Q K K	K H E H K K K	A D A H K Q G L	Y Y F W Y Y W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7
A Q A G A S L A		D L T D E G E T	A Y S S V S D L D I	A I F V E D I Y F	L N T L T T	F E K D S S Q K K V	H H K K K K K	A D A H K Q G L D T	Y Y F W Y W F W W F W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027
A Q A G A S L A	E E E E E E E	D L T D C G G T V	A Y S S V S D L D I L	A I F V E D I Y F N	L N T L T E E	F E K D S S Q K K V	K H E H K K K K	A D A H K Q G L D T R	Y Y F W Y Y W W F W Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot.
A Q A G A S L A	E E E E E E E	D L T D D E G F V F	A Y S S V S D L L L L	A I F V E D I Y F N G	L N T L T E E L	F E K D S S Q K K V I K	K H E H K K K K T	A D A H K Q G L D T R G	Y Y F W Y Y W V W F W W W Y W W Y W W W W W W W W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit
A Q A S L A Q A M	EEEEEEEEE	D L T D D E G F V F	A Y S S V S D L D I L E	A I F V E D I Y F N G	L N T L T T E E L	F E K D S S Q K K V I K	K H E H K R K R T	A D A H K Q G L D T R G Q	Y Y F W Y Y W F W Y W F W Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot.
A Q A G A S L A Q A		D L T D D E G F T E V F I V	A Y S S V S D L D L L E E	I F V E D I Y F N G F D	L N T L T E E L N	F E K D S S Q K K V I K F G	K H E H K K K K T R	A D A H K Q G L D T R G Q T	Y Y F W Y Y W F W Y W F W Y Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F
A Q A G A S L A Q A		D L T D C G F V F I V I	Y S S V S D L L L E E T	A I F V E D I Y F N G F D I	L N T M T L T T E E L N T D	F E K D S S Q K K V I K F G L	K H E H K K K R K T R K	A D A H K Q G T R G Q T F	Y Y F W Y Y W F W Y W F W Y Y Y Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2
A Q A S L A Q A M N Y T G		D L T D C G F V F I V I	A Y S S V S D L L L E E T I	A I F V E D I Y F N G F D I D I R	L N T T E E L N T D D Q	F E K D S S Q K K V I K F G L N	K H E H K K K R K T R K H	A D A H K Q G L D T R G Q T F G	Y Y F W Y Y W F W Y Y W Y W Y W Y W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1
A Q A S L A Q A M N Y T G K		D L T D D E G E T E V F I W	A Y S S V S D L L E E T I F	A I F V E D I Y F N G F D I D R E	L N T T E E L N T D Q G	F E K D S S Q K K V I K F G L N V	K H E H K R K R K T R K H G Q	A D A H K Q G L D T R G Q T F G K	Y Y F W Y Y W F W Y Y W Y W Y W Y W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bc1-2-related prot. A1
A Q A S L A Q A M N Y T G K E		D L T D D E G E T E V F I W L V A	A Y S S V S D L D I L E E T I F H D	A I F V E D I Y F N G F D I D R E D G	L N T T E E L N T D D Q G L G	FEKDSSQKKVIKFGLNVEL	K H E H K R K R K T R K H G Q R	A D A H K Q G L D T R G Q T F G K K S	Y Y F W Y Y W W F W Y W Y W W W Y Y W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bcl-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1
A Q A S L A Q A M N Y T G K E E A		D L T D D E G E T E V F I W L V A D	A Y S S V S D L L E E T I F H D P	A I F V E D I Y F N G F D I D R E D G L	L N T T T E E L N T D D Q G L G G	FEKDSSQKKVIKFGLNVELA	K H E H K R K K R K L T R K H G Q R K I	A D A H K Q G L D T R G Q T F G K K S H	Y Y Y F W Y W F W Y W Y W W Y W W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bc1-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin
A Q A S L A Q A M N Y T G K E E A A		D L T D D E G E V F I V I W L V A D K	A Y S S V S D L D I L E E T I F H D P A	A I F V E D I Y F N G F D I D R E D G L V	L N T T E E L N T D D Q G L G G T	FEKDSSQKKVIKFGLNVELAK	K H E H K R K R K L T R K H G Q R K I E	A D A H K Q G L D T R G Q T F G K K S H E	Y Y F W Y Y W F W Y W Y W W Y W W T T W W T T T T T T T	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bcl-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA
A Q A S L A Q A M N Y T G K E E A A T		D L T D E G E V F I V I V A D K E	A Y S S V S D L D I L E E T I F H D P A F	A I F V E D I Y F N G F D I D R E D G L V N	L N T T E E L N T D D Q G L G G T R	FEKDSSQKKVIKFGLNVELAKE	K H E H K K K K L T R K H G Q R K I E M	A D A H K Q G L D T R G Q T F G K K S H E F	Y Y Y F W Y Y W F W Y W Y W Y W W T T W W T W W T W W T W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bcl-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA Cyclin D-type-binding prot. 1
A Q A S L A Q A M N Y T G K E E A A T W		D L T D D E G E V F I V I W L V A D K E A	A Y S S V S D L D I L E E T I F H D P A F N	A I F V E D I Y F N G F D I D R E D G L V N D	L N T T E E L N T D D Q G L G G T R R	FEKDSSQKKVIKFGLNVELAKEN	K H E H K K K R K L T R K H G Q R K I E M E	A D A H K Q G L D T R G Q T F G K K S H E F T	Y Y F W Y Y W F W Y W Y W W Y Y W W T T W W W W W W W W	Tsof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bcl-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA Cyclin D-type-binding prot. 1 Probable DNA dC->dU-editing enzyme APOBEC-3C
A Q A S L A Q A M N Y T G K E E A A T W A		D L T D D E G E T E V F I V L V A D K E A I	A Y S S V S D L D I L E E T I F H D P A F N E	A I F V E D I Y F N G F D I D R E D G L V N D K	L N T T E E L N T D D Q G L G G T R R L	F E K D S S Q K K V I K F G L N V E L A K E N G	K H E H K K R K L T R K H G Q R K I E M E Q	A D A H K Q G L D T R G Q T F G K K S H E F T K	Y Y Y F W Y Y W F W Y W Y W W Y W W T T F W W Y W Y W Y W W Y W W Y W W Y W W Y W W Y W W Y W W W Y W W W W Y W W W W Y W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bc1-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA Cyclin D-type-binding prot. 1 Probable DNA dC->dU-editing enzyme APOBEC-3C rRNA-processing prot. FCF1 homolog
A Q A S L A Q A M N Y T G K E E A A T W A		D D E G E T E V I W L V A D K E A I V	A Y S S V S D L D I L E E T I F H D P A F N E L	A I F V E D I Y F N G F D I D R E D G L V N D K I	L N T T E E L N T D D Q G L G G T R R L P	F E K D S S Q K K V I K F G L N V E L A K E N G D	K H E H K R K K R K L T R K H G Q R K I E M E Q Q	A D A H K Q G L D T R G Q T F G K K S H E F T K K	Y Y Y Y W Y W Y W Y W Y W W T W W Y W W Y W W Y W Y	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bc1-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA Cyclin D-type-binding prot. 1 Probable DNA dC->dU-editing enzyme APOBEC-3C rRNA-processing prot. FCF1 homolog F-box/LRR-repeat prot. 3
A Q A S L A Q A M N Y T G K E E A A T W A E A		D L T D D E G E T E V F I V L V A D K E A I V E	A Y S S V S D L D I L L E E T I F H D P A F N E L K	A I F V E D I Y F N G F D I D R E D G L V N D K I A	L N T T E E L N T D D Q G L G G T R R L P I	F E K D S S Q K K V I K F G L N V E L A K E N G D V	K H E H K R K K R K L T R K H G Q R K I E M E Q Q Q	A D A H K Q G L D T R G Q T F G K K S H E F T K K Q	Y Y Y Y W Y W Y W Y W Y W T W W Y W W Y W W Y W W Y W W Y W W Y W W W Y W W W W Y W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bcl-2-related prot. Al Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA Cyclin D-type-binding prot. 1 Probable DNA dC-6qt;dU-editing enzyme APOBEC-3C rRNA-processing prot. FCF1 homolog F-box/LRR-repeat prot. 3 Nucleolar GTP-binding prot. 1
A Q A G A S L A Q A M N Y T G K E E A A T W A E A T		D D E G E T E V I W L V A D K E A I V	A Y S S V S D L D I L L E E T I F H D P A F N E L K S	A I F V E D I Y F N G F D I D R E D G L V N D K I A L	L N T T E E L N T D D Q G L G G T R R L P I L	FEKDSSQKKVIKFGLNVELAKENGDVR	K H E H K R K K L T R K H G Q R K I E M E Q Q V	A D A H K Q G L D T R G Q T F G K K S H E F T K K Q G	Y Y F W Y Y W F W Y W F W Y W T W W T W W Y W W T W W W W W W W	Isof. 2 of Interferon regulatory factor 4 Tetratricopeptide repeat protein KIAA0103 TPT1-like prot. Isof. 1 of Plasminogen activator inhibitor 1 RNA-binding prot Isof. 2 of Endothelial differentiation-related factor 1 213 kDa prot. Novel prot. HSPC027 DnaJ homolog subfamily C member 7 16 kDa prot. Isof. 1 of DNA-dependent prot. kinase catalytic subunit Novel prot. Vacuolar ATP synthase subunit F Methionine aminopeptidase 2 Staphylococcal nuclease domain-containing prot. 1 Bc1-2-related prot. A1 Isof. 1 of Prot. regulator of cytokinesis 1 20 kDa prot. F-actin capping prot. subunit alpha-1 Pleckstrin similar to 40S ribosomal prot. SA Cyclin D-type-binding prot. 1 Probable DNA dC->dU-editing enzyme APOBEC-3C rRNA-processing prot. FCF1 homolog F-box/LRR-repeat prot. 3

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OELOEINRVY
                                          Similar to annexin A2 isof. 1
EEEKYAFVNW
                                          Plastin-2
VETGEIKREY
                                          G prot. beta subunit-like
 EMDLKVLQF
                                          Isof. 3 of E3 ubiquitin-prot. ligase BRE1B
                                          Isof. 1 of Replication prot. A 32 kDa subunit
AEKAPTNIVY
T E L G R P D A E Y W
                                          HLA class II DR-beta (HLA-DR B) precursor
AEAEKLGGOSY
                                          Isof. 2 of Golgin subfamily A member 7
REQHDAQVRLY
                                          Lamin-Bl
S E Y K E G G O R N W
                                          transmembrane prot. 19
TEMDSHEEKVF
                                          Hypothetical prot. DKFZp686M09245
REIODEELKKF
                                          Isof. 2 of Uncharacterized protein KIAA0415
EEINKIIRDLW
                                          Isof. 3 of DNA repair prot. RAD50
AEDEGVSORKF
                                          Chloride intracellular channel prot. 1
S E O D G E R G T L W
                                          THUMP domain-containing prot. 3
AEALRLPYEOW
                                          Isof. 1 of 6-phosphofructo-2-kinase/fructose-2,6-biphosphatas
EEVPTOESVKW
OEALNLFKSIW
                                          Guanine nucleotide-binding prot. Gs alpha subunit isof. L3
DEOETPLPRSW
                                          Isof. 1 of Ran-binding prot. 9
S E K H D K I P E I W
                                          Nucleolar GTP-binding prot. 1
E E O G M I L K O T F
                                          DNA ligase 1
NELGVGGTSOW
                                          Sec23 homolog B
EEMEEADKLLW
                                          Integrin alpha FG-GAP repeat containing 2
AEIRIIPAKKY
                                          24-dehydrocholesterol reductase precursor
                                          CDNA FLJ20467 fis, clone KAT06638
EELTVQVARVY
EEMPLNVADLI
                                          13 kDa prot.
EEIAIIPSKKL
                                          16 kDa prot.
NEIADOVSREY
                                          selective LIM binding factor homolog
AEIQNVEGQNL
                                          Isof. LYSp100-A of Nuclear body prot. SP140
                                          Isof. 2 of Interferon regulatory factor 4
REEDAALFKAW
TEHYDIPK V S W
                                          Prot. FAM32A
AEADGLSTNHW
                                          N-acetylglucosamine kinase
AERDVYTGDAL
                                          Proteasome subunit beta type 1 precursor
AEKVIGAGKSW
                                          Cysteine and glycine-rich prot. 1
SELIAKIPNFW
                                          Isof. 1 of Prot. SET
EEALQTIFNRW
                                          Isof. 1 of Myosin-Id
                                          OTTHUMP00000016236
SEFDSISKNTW
AEALLSDLHAF
                                          Prot. tyrosine phosphatase receptor type C-associated prot.
I E I S E L P V R T W
                                          183 kDa prot.
EEDOAAELRAY
                                          PCI domain-containing prot. 1
YEFDEOGHSTW
                                          Kanadaptin
 EVAEESGRLW
                                          disulfide isomerase
LEEEGNLLRSW
                                          116 kDa prot.
AELEDDFKEGY
                                          Isof. 2 of Interleukin-32 precursor
A E D L N S R V S Y W
                                          Transmembrane emp24 domain-containing prot. 3 precursor
LEQDPEGLHLW
                                          Prot. phosphatase 1 regulatory subunit 15B
SENLIKHVOGW
                                          WW domain containing adaptor with coiled-coil
 EDLNTRVAYW
                                          Transmembrane emp24 domain-containing prot. 7 precursor
SENPNEVFRFL
                                          Isof. Long of Ubiquitin carboxyl-terminal hydrolase 5
AEAFEAIPRAL
                                          unknown prot.
                                          Cytochrome c oxidase subunit VIb isof. 1
AEDMETKIKNY
                                          influenza virus NS1A binding protein isof. a
V E M Y D P T R N E W
AEAITLAERKY
                                          Isof. 1 of Golgin subfamily A member 5
SEQSSVGTQHSY
                                          Plastin-2
S E G S L O E G H R L W
                                          Probable RNA-binding prot. 18
AEIGEGAYGKVF
                                          Cell division prot. kinase 6
A E F P Q P P G A A R W
                                          Novel prot.
V E M P L T G K A Y L W
                                          34 kDa prot.
A E S E E G P D V L R W
                                          Sec23 homolog B
NEQYEHASIHLW
                                          GPI-anchored membrane prot. 1
EEASSLNSLHLF
                                          Isof. 1 of Zinc finger prot. 644
SEIDLVQIKQMF
                                          Isof. 1 of Annexin A7
TEADVEEALRLF
                                          DNA replication licensing factor MCM5
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S E D D R L P V I Q M W
                                           SEC31 homolog A isof. 4
SETSQAGLFRLW
                                           DNA polymerase epsilon, catalytic subunit A
GEIQEIVKTGLW
                                           Coatomer subunit beta
AEKSQERPGNFY
                                           Novel prot.
TEKELAEAASKW
                                           Histone H2B type 1-K
QENGSLVEIRNF
                                           19 kDa prot.
S E A L G D N V K O Y W
                                           Transcriptional adaptor 1 (HFI1 homolog, yeast)-like
SEIDMNDIKAFY
                                           Annexin Al
A E D A L H N L D R K W
                                          Isof. 3 of FUS-interacting serine-arginine-rich prot. 1
TEAAYTLLLHTW
                                          Isof. 1 of Dedicator of cytokinesis prot. 2
A E T D L S Q G V A R W
                                           Isof. 1 of Prot. FAM62A
  EEKSSIHDARSW
                                           Isof. 4 of Serine/threonine-protein kinase 40
A E T N S R V S G V D G Y
                                           DNA replication licensing factor MCM6
A E D Y S V D E N G Q R W
                                         Isof. Long of Long-chain-fatty-acid--CoA ligase 4
SEVDVSDLGSRNY
                                          Isof. 1 of Single Ig IL-1-related receptor
ELFGHAVSENGASV
                                          Cadherin-3 precursor
NEVDDRGLYKEGQNW
                                          Microsomal signal peptidase 21 kDa subunit
A E A E P P S E V V S T P V L W
                                           exosome component 9 isof. 1
                                           EF-hand domain-containing prot. 2
S E I D V S S E G V K G A K S F
A E D G G T G G G S T Y V S K P V S W
                                           7 kDa prot.
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This table shows peptides from sHLA-B*44:02 molecules, that are defined as high affinity peptides. The peptides are derived from LCL 721.221 cells that have functional TPN: 194 single peptides have been recovered.

1C)

HLA-B*44:28 (origin: LCL 721.221 cells) High affinity binding peptides (after TFA)

Peptide position

1 2 3 4 5 6 7 8 9 10 11 12 13

I	iga	and	S								Source
A	1	E	Е	Е	F	v	Q	R	F		mitochondrial ribosomal prot. S9
S	3	E	Е	D	L	K	V	L	F		Isof. 1 of Polypyrimidine tract-binding prot. 1
N	I	Е	Α	G	P	P	E	G	Y		Acidic (Leu-rich) nucl. phosphoprot. 32 fam., member E
P		Е	D	L	V	V	т	K	Y		Proliferation-associated prot. 2G4
M	1	Е	Е	L	E	N	E	R	W		Isof. 2 of FCH and double SH3 domains prot. 2
P	1	Е	Y	${\tt L}$	I	K	E	G	Y		Prolyl endopeptidase
M	1	Е	N	I	Н	S	E	М	Y		Ribonucleoside-diphosphate reductase M2 chain
N	Į	Е	М	I	V	T	G	Q	Y		mitochondrial ribosomal prot. L21 isof. a
A	4	Е	S	I	V	V	Н	$_{\mathrm{T}}$	Y		soform 3 of Exportin-2
Ç)	Е	V	F	E	K	A	${\tt T}$	F		NCL prot.
M	1	E	Е	М	Ε	F	Q	R	F		DNA polymerase epsilon subunit 3
Ç)	E	V	T	Q	D	L	Н	Y		Septin-2
S	5	Е	D	G	K	V	Q	V	F		Isof. Short of Vacuolar prot. sorting-associated prot. 41 homolog
Ç	2	E	М	I	S	E	Q	R	W		Isof. 2 of E3 ubiquitin-prot. ligase LRSAM1
S	3	Ε	D	٧	S	I	S	K	F		116 kDa U5 small nucl. ribonucleoprot. component
S	5	Ε	L	Q	S	Q	V	R	Y		19 kDa prot.
G	;	Е	F	Q	T	Q	Н	s	Y		hypothetical prot. LOC80208
Γ		Е	Е	T	Н	P	V	S	W		Isof. 2 of Pleiotropic regulator 1
P		Е	N	P	Н	s	E	Y	G	L	Dpy-30-like prot.

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REAEGTAGGW
                                       Immediate early response gene 5 prot.
EEAYNAVVRY
                                       formin-like 3 isof. 1
SELTAEKLGF
                                       T-complex prot. 1 subunit epsilon
AELKAPGISY
                                       Isof. 1 of Phosphoinositide 3-kinase regul. subunit 5
I E D P Q I Q A H W
                                       CRSP complex subunit 6
S E N K I V G I G Y
                                       Deoxycytidylate deaminase
G E G T G S P P K W
                                      Isof. 1 of Alpha-adducin
AEDLNSRVSY
                                       Transmembr. emp24 domain-containing prot. 3 precursor
A E G T E E G A R W
                                       Isof. OS-9-2 of Prot. OS-9 precursor
DIMKDKDNFW
                                       Actin-like prot. 2
G E D V E T S K K W
                                       Isof. 2 of Endothelial different.-related factor 1
QESGPSAEKY
                                       21 kDa prot.
AEAYVHVNOY
                                       Coatomer subunit beta
OEPKALVSEW
                                       similar to DNA damage-binding prot. 1
OETSFTKEAY
                                       TPT1-like prot.
QELQEINRVY
                                       Similar to annexin A2 isof. 1
OEEINEVKTW
                                       16 kDa prot.
AEETSKIETY
                                       Zinc finger and BTB domain-containing prot. 38
M E L P H G G E G W
                                       prot. kinase Mytl isof. 2
EEMKOMEERY
                                       Hook homolog 3
EEVLIPDQKY
                                       F-box/LRR-repeat prot. 3
NEMLEEGHEY
                                       cytoplasmic FMR1 interacting prot. 2
L E G N P D T H S W
                                       Isof. 2 of Ubiquitin-associated prot. 2-like
L E M T P Q R G D V Y
                                       HLA class II ag, DQ(W1.1) \beta chain precursor
EEMGKEIRPTY
                                       Cyclin-dependent kinase 2-associated prot. 2
AETVEGENHTY
                                       Filamin A, alpha
AEYPFSSEOKW
                                       Isof. 2 of Calcium-transp. ATPase type 2C member 1
AELDTLNEDSY
                                       14-3-3 prot. eta
REAWASKDATY
                                       minichromosome maintenance prot. 7 isof. 2
AEOELANLEKW
                                       epithelial stromal interaction 1 isof. 2
NEYQTAISENY
                                       F-actin capping prot. subunit alpha-1
AEEESKGSATY
                                       Zinc finger prot. 622
AEASALQQQQY
                                       KIAA1932 prot.
MELKPFNGEDY
                                       Isof. 3 of DNA topoisomerase 2-alpha
AEDMETKIKNY
                                       Cytochrome c oxidase subunit VIb isoform 1
V E A Y N I R T D S W
                                       Kelch-like prot. 12
EEVPTQESVKW
                                       Isof. 2 (Vacuolar prot. sorting-associated prot. 13A)
AELEDDFKEGY
                                      Isof. 2 of Interleukin-32 precursor
TEQNFISKSGY
                                      S-formylglutathione hydrolase
AEDENGKIVGY
                                       N-term. Acetyltransfer. complex ARD1 subunit homol. A
AEAEKLGGQSY
                                       Isof. 2 of Golgin subfam. A member 7
YEIITGHEEGY
                                       TRAF and TNF receptor-associated prot.
SESSTILVVRY
                                       Sperm prot. associated with the nucleus on the X chromosome D
QEDAARLQAAY
                                       spectrin, beta, non-erythrocytic 1 isof. 2
NESSADWREVW
                                       Fatty acid synthase
AEGQSPLSQKY
                                       similar to nucl. receptor binding factor 2
G E I D P D Q A D I T Y
                                       Isof. 3 of Golgi-associated PDZ + coiled-coil motif-containing prot.
S E Q S S V G T Q H S Y
                                       Lymphocyte cytosolic prot. 1
EEMPATKGGFSF
                                       Nuclear pore complex prot. Nup153
A E S E E G P D V L R W
                                       Sec23 homolog B
A E V S P M Y G V Q K Y
                                       Growth hormone-inducible transmembrane prot.
AETDLSQGVARW
                                       Isof. 1 of Prot. FAM62A
SERWOPDTEEEY
                                       Splicing factor 3A subunit 3
S E L S S E G T Q H S Y
                                       plastin 3
                                       Prot. UNQ655/PRO1286 precursor
OEAATTOENVAW
LEEDGEIISHQY
                                       KIAA1799 prot.
QEAQSIDEIYKY
                                       COP9 signalosome complex subunit 5
TEDEVLTSKGDAW
                                       Chromosome 19 open reading frame 43
AELRTVESEAASY
                                       Isof. 1 of Proteasome activator complex subunit 3
A E D Y S V D E N G Q R W
                                       Isof. Long of Long-chain-fatty-acid--CoA ligase 4
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This table shows peptides from sHLA-B*44:28 molecules, that are defined as high affinity peptides. The peptides are derived from LCL 721.221 cells that have functional TPN: 79 single peptides have been recovered.

HLA-B*44:28 (origin: LCL 721.220 cells)

Low binding peptides (before TFA)

Peptide position

1 2 3 4 5 6 7 8 9 10 11 12

Li	gand	ls										Source
Е	E	G	P	D	V	L	R	W				Sec23 homolog B
G	E	D	Т	F	V	Н	I	W				Isof. 1 of WD repeat prot. 54
E	E	I	P	V	S	S	Н	Y				Bloom syndrome prot.
A	E	I	R	S	L	V	T	W				Interferon-induced prot. with tetratricopeptide repeats 3
T	E	R	R	P	P	A	K	F				Arylsulfatase K precursor
Q	E	D	L	R	T	F	S	W				Ras GTPase-activating protbinding prot. 1
G	E	Q	L	A	N	S	R	P	I			Isof. 2 of Chromodomain-helicase-DNA-binding prot. 9
E	E	I	D	L	R	S	V	G	W			UNC93 homolog B1
E	E	V	L	I	P	D	Q	K	Y			F-box/LRR-repeat prot. 3
D	E	Q	$_{\mathrm{T}}$	P	I	Н	I	S	W			Cyclin-dependent kinase inhibitor 3
S	E	E	G	P	D	V	L	R	W			Sec23 homolog B
A	E	F	K	E	A	F	Q	L	F			Isof. Non-muscle of Myosin light polypeptide 6
T	E	I	T	D	D	${\tt L}$	H	F	Y			Staphylococcal nuclease domain-containing prot. 1
G	E	D	V	E	\mathbf{T}	S	K	K	W			Isof. 2 of Endothelial differentiation-related factor ${\bf 1}$
E	E	E	K	Y	A	\mathbf{F}	V	N	W			Plastin-2
E	E	D	A	A	L	F	K	A	W			Isof. 2 of Interferon regulatory factor 4
E	E	F	Q	K	E	${\tt L}$	S	Q	W			Isof. 1 of Tuftelin-interacting protein 11
D	E	\mathbf{T}	D	S	G	A	G	L	K	W		Isof. DFF45 of DNA fragmentation factor subunit alpha
E	E	M	P	L	N	V	A	D	L	I		13 kDa prot.
T	E	Q	S	Q	I	K	G	Y	V	W		Gamma-secretase subunit PEN-2
А	E	I	V	Ε	G	E	N	Н	T	Y		Filamin A, alpha
Α	E	D	L	N	S	R	V	S	Y	W		Transmembrane emp24 domain-containing prot. 3 precursor
G	E	I	D	G	N	K	V	T	L	D	W	NCL prot.
Е	Е	V	D	L	S	K	D	I	Q	Н	W	Ribonucleoside-diphosphate reductase M2 chain

This table shows peptides from sHLA-B*44:28 molecules, that are defined as low affinity peptides. The peptides are derived from LCL 721.220 cells lacking functional TPN: 24 single peptides have been recovered.

HLA-B*44:28 (origin: LCL 721.220 cells)

High affinity binding peptides (after TFA)

Peptide position

1 2 3 4 5 6 7 8 9 10 11 12

Ligands	Source
A E D E L F N R Y	Nuclear pore complex prot. Nup107
N E L V D D L F K	Isof. 1 of NSFL1 cofactor p47
A E I R S L V T W	Interferon-induced prot. with tetratricopeptide repeats 3
S E T E L K D T Y	P67
M E N I H S E M Y	Ribonucleoside-diphosphate reductase M2 chain
TEDDKAYAY	Isof. 1 JmjC domain-containing histone demethylation prot. 3C
E E M D L F T K Y	Isof. 1 of Serine/threonine-prot. phosphatase 2A
E E S L N I V K Y	Conserved hypothetical prot.
E E G P D V L R W	Sec23 homolog B
E E I P V S S H Y	Bloom syndrome prot.
S E D G K I H V W	WD40 prot.
EELEQKYTY	Isof. α of Signal transducer/activator of transcription $1-\alpha/\beta$
TELPKAEKW	14 kDa prot.
V E Q G I D A K W	Enhancer of mRNA decapping prot. 3
G E D T F V H I W	Isof. 1 of WD repeat prot. 54
A E V A E H V Q Y	Geminin
AEGEINNVQW	WD repeat prot. 68
EEFQKELSQW	Isof. 1 of Tuftelin-interacting prot. 11
AEEKPIEIQW	Brix domain-containing prot. 2
S E E G P D V L R W	Sec23 homolog B
N E M E A P T T A Y	Hematopoietic lineage cell-specific prot.
E E I D L R S V G W	UNC93 homolog B1
AEIDEEPVSK	Nascent polypeptide-associated complex subunit alpha
S E A G S H T L Q W	HLA class I histocomp. antigen, Cw-14 alpha chain precursor
A E G T E E G A R W	Isof. OS-9-2 of Prot. OS-9 precursor
A E D P L G A I H L	Pleckstrin
DEQTPIHISW	Cyclin-dependent kinase inhibitor 3
TEITDDLHFY	Staphylococcal nuclease domain-containing prot. 1
EEDAALFKAW	Isof. 2 of Interferon regulatory factor 4
I E S G E V L E R W	Mitotic spindle assembly checkpoint protein MAD2A
G E D V E T S K K W	Isof. 2 of Endothelial differentiation-related factor 1
E E E K Y A F V N W	Plastin-2
E E V L I P D Q K Y	F-box/LRR-repeat prot. 3
D E T D S G A G L K W	Isof. DFF45 of DNA fragmentation factor subunit alpha
A E V L D T E G S I Q	12 kDa prot.
T E Q S Q I K G Y V W	Gamma-secretase subunit PEN-2
E E E P E G G F S K W	Liprin-beta-2
N E D P E G S R I T Y	18 kDa prot.
A E I V E G E N H T Y	Filamin A, alpha
A E D E N G K I V G Y	N-terminal acetyltransferase complex ARD1 subunit homolog A
S E M E V Q D A E L K	Proliferation-associated prot. 2G4
A E D L N S R V S Y W	6 Transmembrane emp24 domain-containing prot. 3 precursor
G E I D G N K V T L D W	CDNA FLJ45706 fis, clone FEBRA2028457, highly similar to Nucleolin
E E V D L S K D I Q H W	Ribonucleoside-diphosphate reductase M2 chain

This table shows peptides from sHLA-B*44:28 molecules, that are defined as high affinity peptides. The peptides are derived from LCL 721.220 cells lacking functional TPN: 44 single peptides have been recovered.