

Supplementary tables

Table SI. Information of peptide candidates used for personalized peptide vaccination.

Peptide name	Original protein	Position	Sequence	HLA-IA restriction
CypB-129	Cyclophilin B	129-138	KLKHYGPGWV	A2/A3 supertype ^a
Lck-246	p56 lck	246-254	KLVERLGAA	A2
Lck-422	p56 lck	422-430	DVWSFGILL	A2/A3 supertype ^a
ppMAPkkk-432	ppMAPkkk	432-440	DLLSHAFFA	A2/A26
WHSC2-103	WHSC2	103-111	ASLDSDPWV	A2/A26/A3 supertype ^a
HNRPL-501	HNRPL	501-510	NVLHFFNAPL	A2/A26
UBE2V-43	UBE2V	43-51	RLQEWCSVI	A2
UBE2V-85	UBE2V	85-93	LIADFLSGL	A2
WHSC2-141	WHSC2	141-149	ILGELREKV	A2
HNRPL-140	HNRPL	140-148	ALVEFEDVL	A2
SART3-302	SART3	302-310	LLQAEAPRL	A2
SART3-309	SART3	309-317	RLAEYQAYI	A2
SART2-93	SART2	93-101	DYSARWNEI	A24
SART3-109	SART3	109-118	VYDYNCHVDL	A24/A26/A3 supertype ^a
Lck-208	p56 lck	208-216	HYTNASDGL	A24
PAP-213	PAP	213-221	LYCESVHNF	A24
PSA-248	PSA	248-257	HYRKWIKDTI	A24
EGF-R-800	EGF-R	800-809	DYVREHKDNI	A24
MRP3-503	MRP3	503-511	LYAWEPSFL	A24
MRP3-1293	MRP3	1293-1302	NYSVRYRPGI	A24
SART2-161	SART2	161-169	AYDFLYNYL	A24
Lck-486	p56 lck	486-494	TFDYLRSLV	A24
Lck-488	p56 lck	488-497	DYLRSVLEDF	A24
PSMA-624	PSMA	624-632	TYSVSFDSL	A24
EZH2-735	EZH2	735-743	KYVGIEREM	A24
PTHrP-102	PTHrP	102-111	RYLTQETNKV	A24

SART3-511	SART3	511-519	WLEYYNLER	A3 supertype ^a
SART3-734	SART3	734-742	QIRPIFSNR	A3 supertype ^a
Lck-90	p56 lck	90-99	ILEQSGEWWK	A3 supertype ^a
Lck-449	p56 lck	449-458	VIQNLERGYR	A3 supertype ^a
PAP-248	PAP	248-257	GIHKQKEKSR	A3 supertype ^a

^aHLA-A3 supertype included -A3, -A11, -A31 and -A33

Table SII. Adverse events during the personalized peptide vaccination in 44 patients without active tumor.

CTCAE Term	Grade			
	1-2	3	4	5
General disorders and administration site conditions				
Injection site reaction	42	1	0	0
Skin induration	44	0	0	0
Edema	1	0	0	0
Pain	2	0	0	0
Fever	3	0	0	0
Fatigue	3	0	0	0
Gastrointestinal disorders				
Nausea	2	0	0	0
Diarrhea	6	0	0	0
Constipation	2	0	0	0
Vomiting	2	0	0	0
Anorexia	3	0	0	0
Hemorrhoids	2	0	0	0
Infections and infestations				
Pharyngitis	1	0	0	0
Biliary tract infection	1	0	0	0
Bladder infection	1	0	0	0
Stomatitis	1	0	0	0
Hepatobiliary disorders				
Hepatobiliary disorders: Other, liver dysfunction	1	0	0	0
Musculoskeletal and connective tissue disorder				
Arthralgia	4	0	0	0
Lumbago	1	0	0	0
Myalgia	1	0	0	0
Back pain	1	0	0	0
Numbness	3	0	0	0
Osteoporosis	2	0	0	0

Blood and lymphatic system disorders				
Anemia	6	0	0	0
Vascular disorders				
Hypertension	2	2	0	0
Respiratory, thoracic and mediastinal disorders				
Hoarseness	1	0	0	0
Pneumonitis	2	0	0	0
Cough	2	0	0	0
Sinus disorder	1	0	0	0
Injury, poisoning and procedural complications				
Fracture	0	0	0	0
Renal and urinary disorders				
Urinary frequency	2	0	0	0
Urinary retention	2	0	0	0
Nervous system disorders				
Cerebral infarction	0	1	0	1
Dizziness	2	0	0	0
Peripheral sensory neuropathy	2	0	0	0
Dysgeusia	1	0	0	0
Cardiac disorders				
Bradycardia	1	0	0	0
Psychiatric disorders				
Insomnia	4	0	0	0
Metabolism and nutrition disorders				
Hyperglycemia	1	0	0	0
Hyperuricemia	1	0	0	0
Hypoalbuminemia	4	0	0	0
Hypocalcemia	1	0	0	0
Hyponatremia	1	0	0	0
Glucose intolerance	1	0	0	0
Endocrine disorders				
Hypothyroidism	0	0	0	0

Skin and subcutaneous tissue disorders				
Purpura	1	0	0	0
Urticaria	1	0	0	0
Pruritus	3	0	0	0
Skin ulceration	1	0	0	0
Skin hyperpigmentation	3	0	0	0
Skin eruption	2	0	0	0
Ear and labyrinth disorders				
Vertigo	1	0	0	0
Tinnitus	2	0	0	0
Eye disorders				
Cataracts	1	0	0	0
Blariness	1	0	0	0
Immune system disorders				
Autoimmune disorder	1	0	0	0
Neoplasms benign, malignant and unspecified				
Tumor pain	0	0	0	0
Neoplasms benign and malignant	0	0	0	0
Investigations				
ALP increased	5	0	0	0
ALT increased	4	0	0	0
AST increased	4	0	0	0
GGT increased	6	0	0	0
Creatinine increased	1	0	0	0
Albumin decreased	8	0	0	0
Cholesterol high	8	0	0	0
Leukopenia	6	0	0	0
Neutropenia	1	0	0	0
Investigation: Other, LDH increased	2	0	0	0
Investigation: Other, proteinuria	0	1	0	0
Investigation: Other, uric acid increased	1	0	0	0
Lymphopenia	5	0	0	0

Thrombocytopenia	4	0	0	0
Bilirubin increased	2	0	0	0
Respiratory, thoracic and mediastinal disorders				
Hypoxia	0	0	0	0
Vascular disorder				
Hot flashes	1	0	0	0