

Figure 1A

		1		2		3		4		5		UV-exchange
PE	Peptide 4	Peptide 4		Peptide 4		Peptide 4		Peptide 4		Peptide 4		
APC-Cy7	Naïve	Digested Un-exchanged		Peptide 5		Dengue 1		Dengue 2		Dengue 2		
		6		7		8		9		10		Enzyme exchange TRIS buffer PH 8 RT 16 hours
PE	Peptide 4	Peptide 4		Peptide 4		Peptide 4		Peptide 4		Peptide 4		
APC-Cy7	Naïve	Digested Un-exchanged		Peptide 5		Dengue 1		Dengue 2		Dengue 2		
		11		12		13		14		15		Enzyme exchange Citrate buffer PH 6.2 RT for 16 hours
PE	Peptide 4	Peptide 4		Peptide 4		Peptide 4		Peptide 4		Peptide 4		
APC-Cy7	Naïve	Digested Un-exchanged		Peptide 5		Dengue 1		Dengue 2		Dengue 2		

Positive control:

Peptide 4: AVFDRKSDAK SEQ ID NO: 5

Peptide 5: IVTDFSVIK SEQ ID NO: 39

Negative controls:

Dengue 1: GTSGSPIVNR SEQ ID NO: 44

Dengue 2: ATYGWNLVK SEQ ID NO: 45

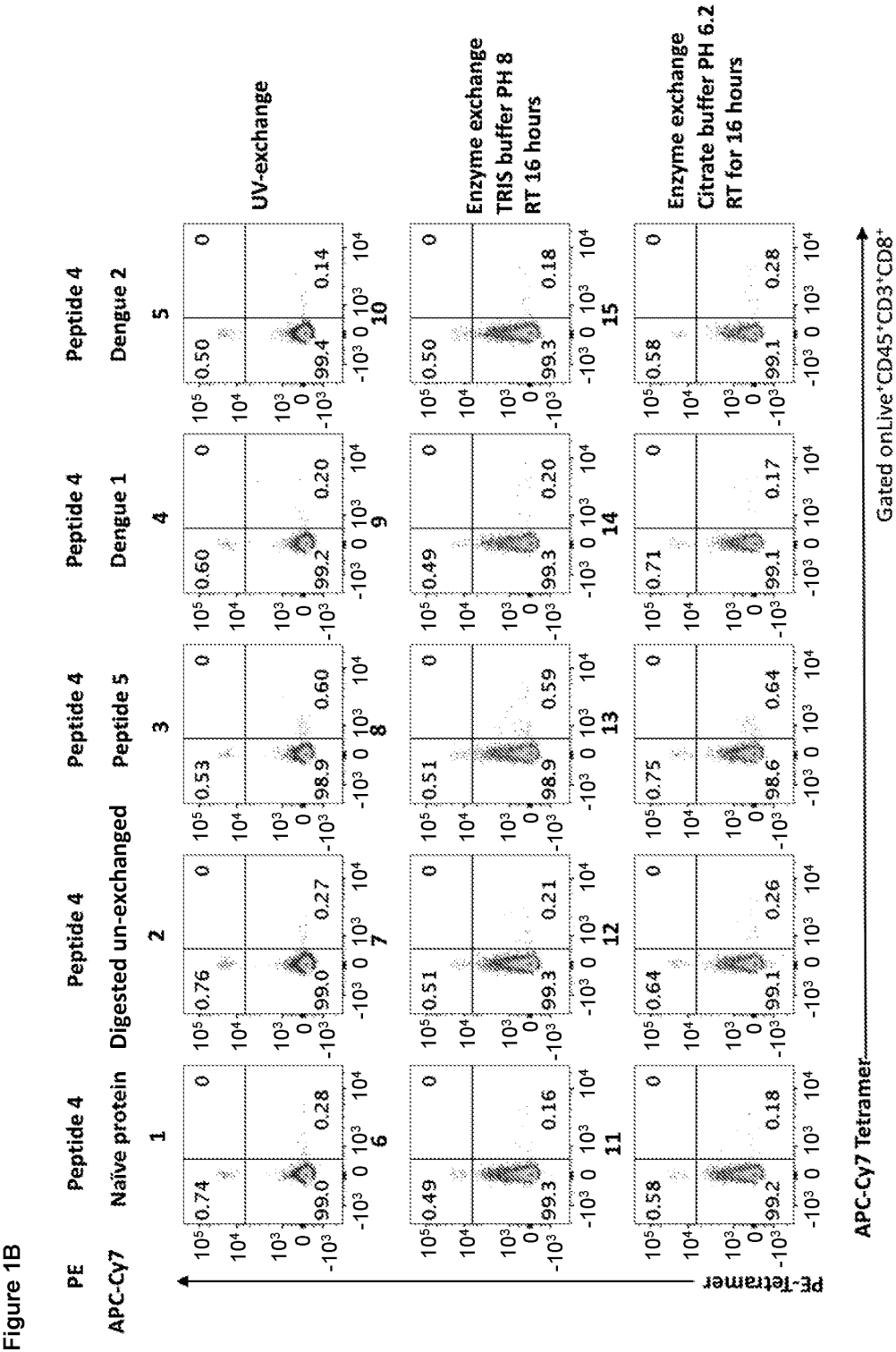


Figure 2

A

No.	HLA-A*11:01 Control peptides Sequence	SAV 1	SAV 2	SAV 3	
1	SIIPSGPLK	152	166	175	SEQ ID NO: 46
2	RMVLASTTAK	166	174	175	SEQ ID NO: 47
3	KSMREEYRK	152	174	175	SEQ ID NO: 48
4	AVFDRKSDAK (influenza 1)	164	166	174	SEQ ID NO: 5
5	IVTDFSVIK (EBV 1)	152	154	166	SEQ ID NO: 39
6	NTLEQTVKK (EBV 2)	152	164	166	SEQ ID NO: 40
7	ATIGTAMYK	154	164	166	SEQ ID NO: 49
8	SSCSSCPLSK	152	166	174	SEQ ID NO: 50
9	YVNVNMGLK	154	164	175	SEQ ID NO: 51
10	NAIVE	154	166	174	
11	Digested un-exchanged	152	164	174	

B EBV peptide 1 (IVTDFSVIK): 166-152-154

SEQ ID NO: 39

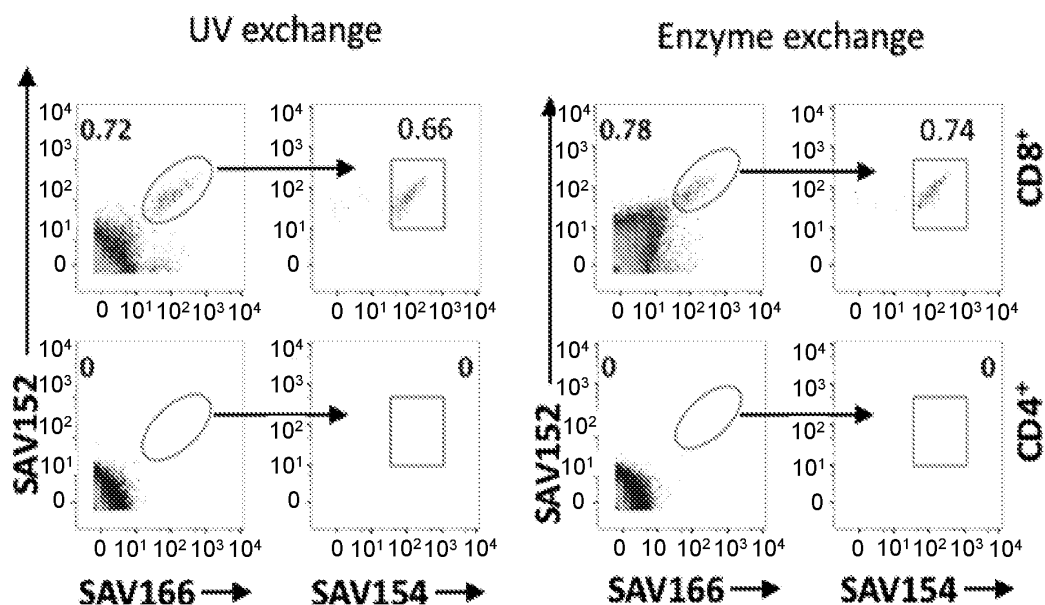
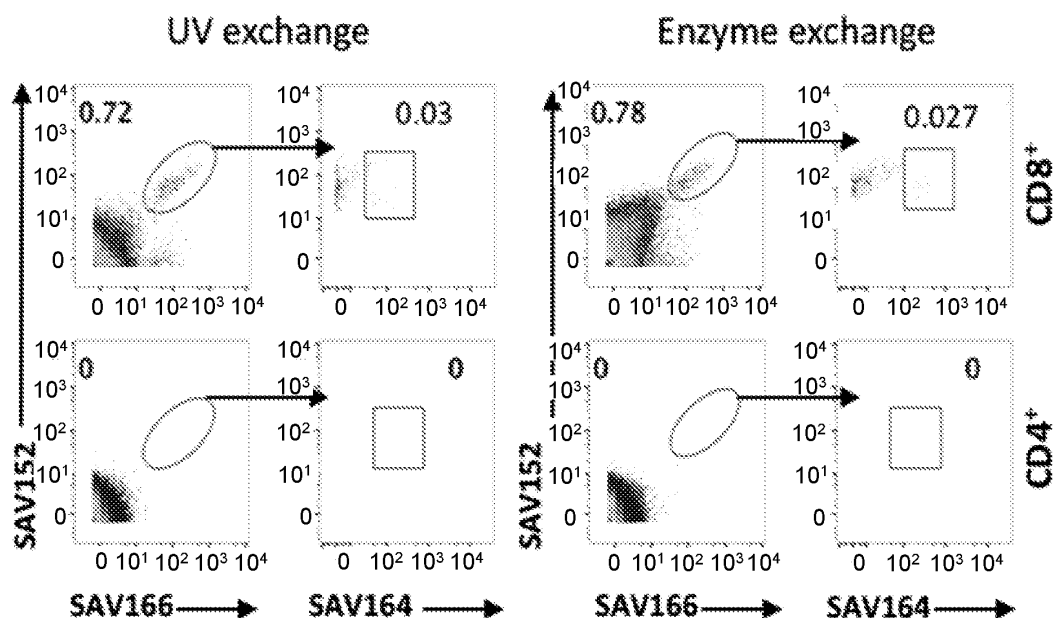


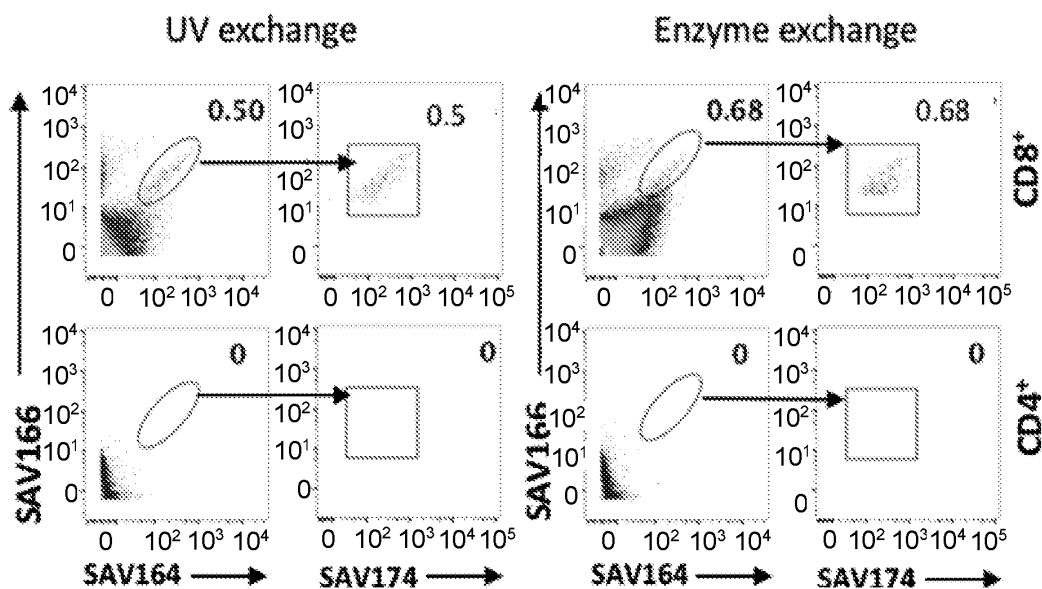
Figure 2 (continued)

C EBV peptide 2 (NTLEQTVKK): 166-152-164

SEQ ID NO: 40

**D Influenza peptide 1 (AVFDRKSDAK): 166-164-174**

SEQ ID NO: 5



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Figure 3A

PE	Peptide 1	Peptide 1	Peptide 1	Peptide 1	Peptide 1	UV-exchange (1.2mg/ml)
APC	Naive	Digested	Peptide 2	Peptide 3	Peptide 15	
Unexchanged						
PE	Peptide 1	Peptide 1	Peptide 1	Peptide 1	Peptide 1	UV-exchange (5mg/ml)
APC	Naive	Digested	Peptide 2	Peptide 3	Peptide 15	
Unexchanged						
PE	Peptide 1	Peptide 1	Peptide 1	Peptide 1	Peptide 1	Enzyme exchange TRIS buffer PH 8 RT 16 hours
APC	Naive	Digested	Peptide 2	Peptide 3	Peptide 15	
Unexchanged						
PE	Peptide 1		Peptide 1	Peptide 1	Peptide 1	Enzyme exchange TRIS Buffer PH 8 37°C 16 hours
APC	Naive		Peptide 2	Peptide 3	Peptide 15	
PE	Peptide 1		Peptide 1	Peptide 1	Peptide 1	Enzyme exchange Citrate buffer PH 6.2 RT for 16 hours
APC	Naive		Peptide 2	Peptide 3	Peptide 15	
PE	Peptide 1		Peptide 1	Peptide 1	Peptide 1	Enzyme exchange Citrate buffer PH 6.2 37°C for 16 hours
APC	Naive		Peptide 2	Peptide 3	Peptide 15	

Positive control:

Peptide 1: NLVPMVATV SEQ ID NO: 41

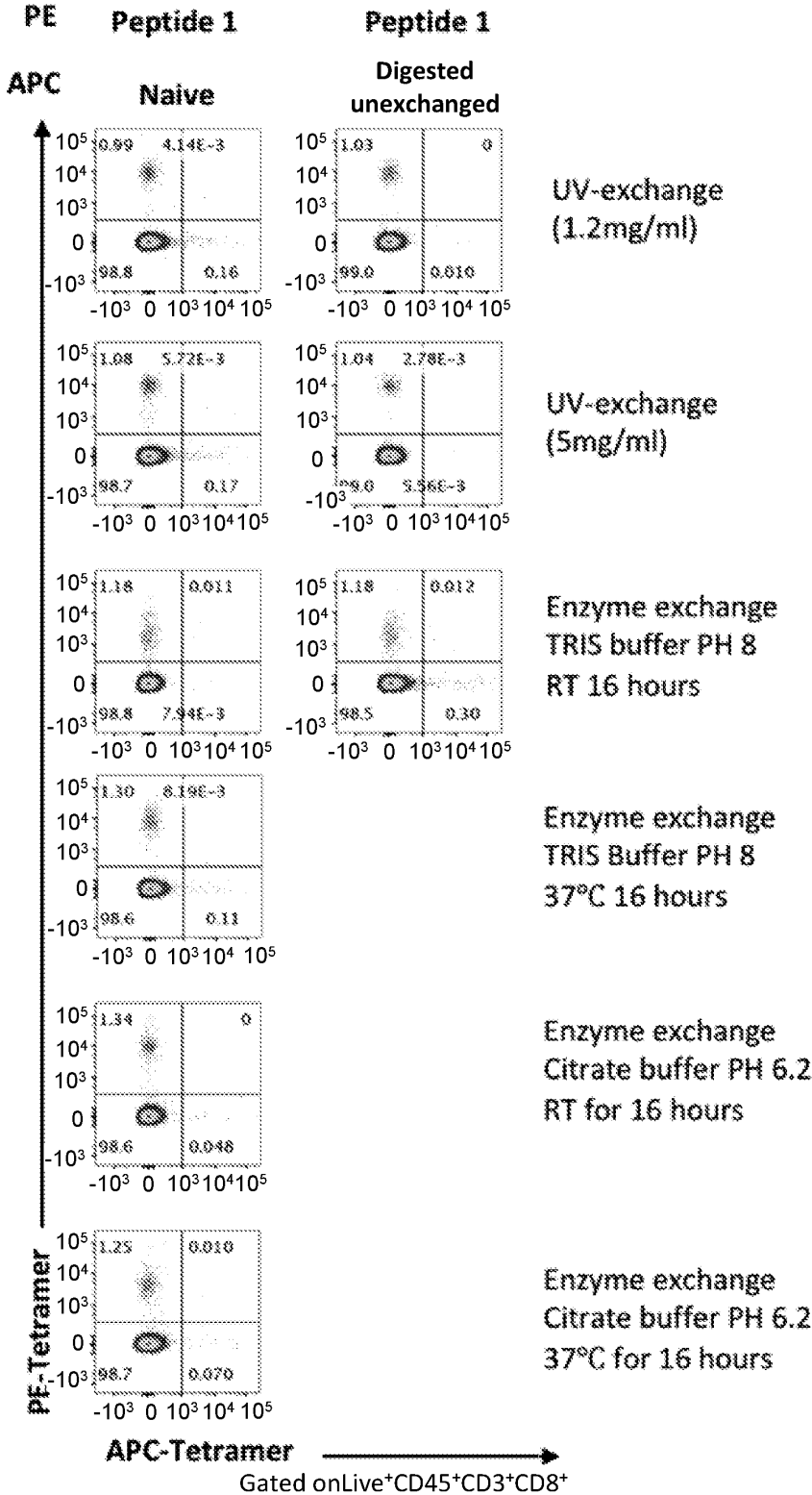
Negative controls:

Peptide 2: VLEETSVML SEQ ID NO: 52

Peptide 3: GTSGSPIVNR SEQ ID NO: 44

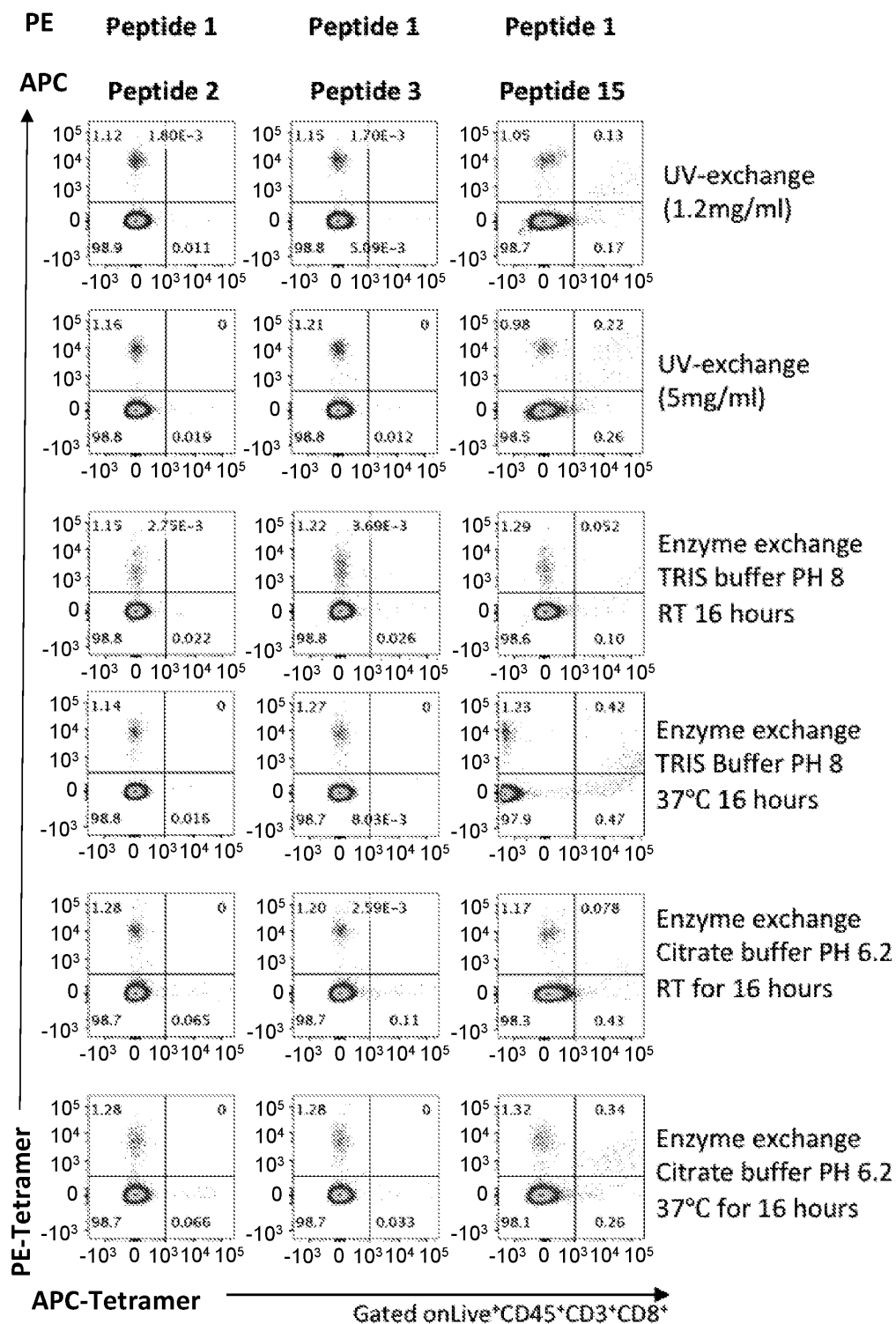
Peptide 15: FLDKGTYL SEQ ID NO: 53

Figure 3B



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Figure 3B (continued)



SUBSTITUTE SHEET (RULE 26)

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Figure 4A

PE	Peptide 1	Peptide 1	Peptide 1	Peptide 1
APC	Naive	Digested unexchanged	Peptide 2	Peptide 11

UV-exchange

PE	Peptide 1	Peptide 1	Peptide 1	Peptide 1
APC	Naive	Digested unexchanged	Peptide 2	Peptide 11

**Enzyme exchange
Cacodylate buffer PH 6.2
RT for 16 hours**

PE	Peptide 1	Peptide 1	Peptide 1	Peptide 1
APC	Naive	Digested unexchanged	Peptide 2	Peptide 11

**Enzyme exchange
TRIS buffer PH 8
RT 16 hours****Positive control:**

Peptide 1: NLVPMVATV SEQ ID NO: 41

Negative controls:

Peptide 2: VLEETSVML SEQ ID NO: 52

Peptide 11: FLYALALL SEQ ID NO: 54

Figure 4B

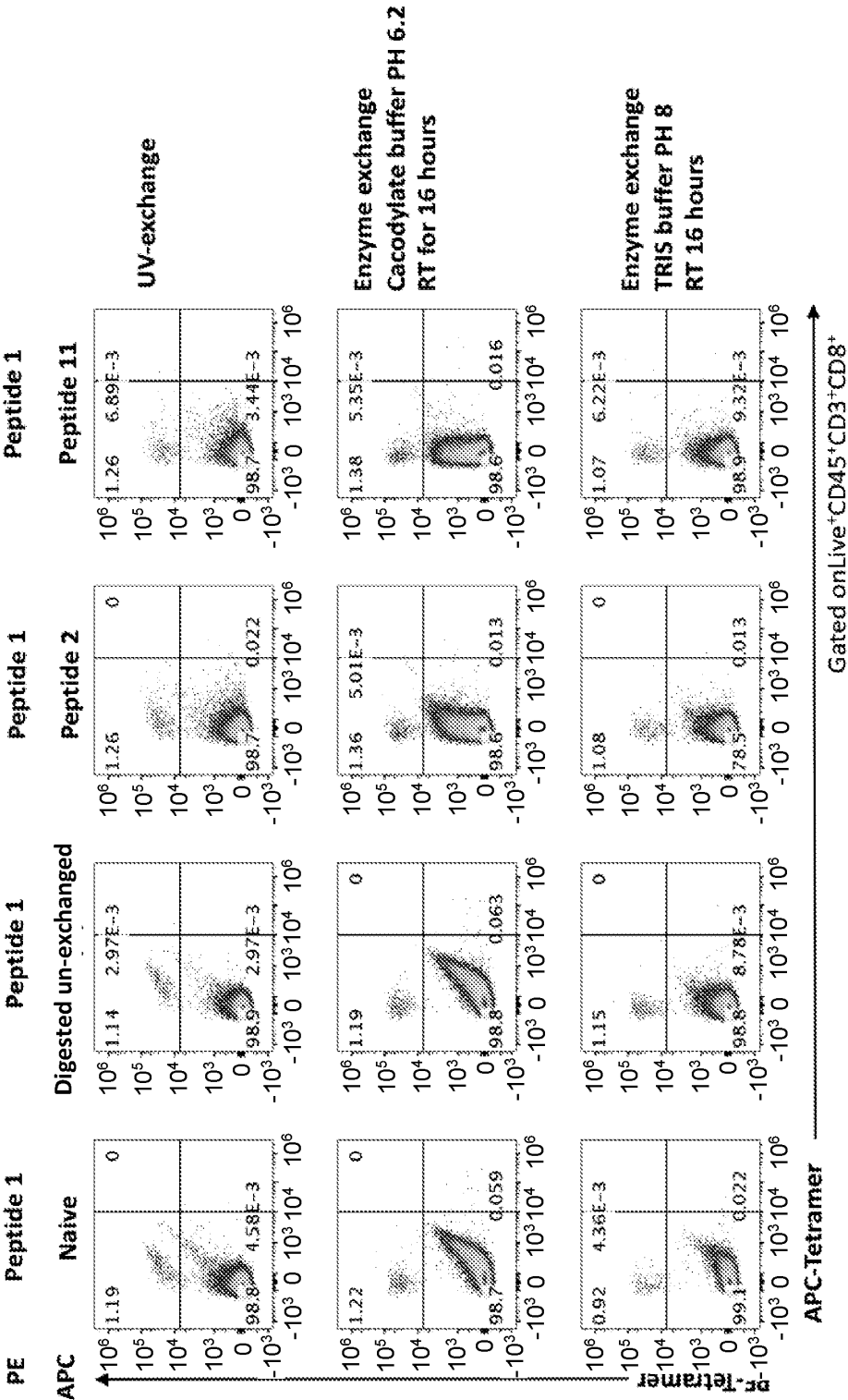


Figure 5

A

No.	Peptide	SAV Codes	
1	NLVPMVATV (CMV)	152, 154, 158	SEQ ID NO: 41
2	VLEETSVML	164, 166, 171	SEQ ID NO: 52
3	FLDKGTYTL	166, 171, 175	SEQ ID NO: 53
4	FLYALALL	164, 166, 175	SEQ ID NO: 54
5	Digested-Unexchanged	164, 173, 175	
6	Naïve Protein	171, 173, 175	

B