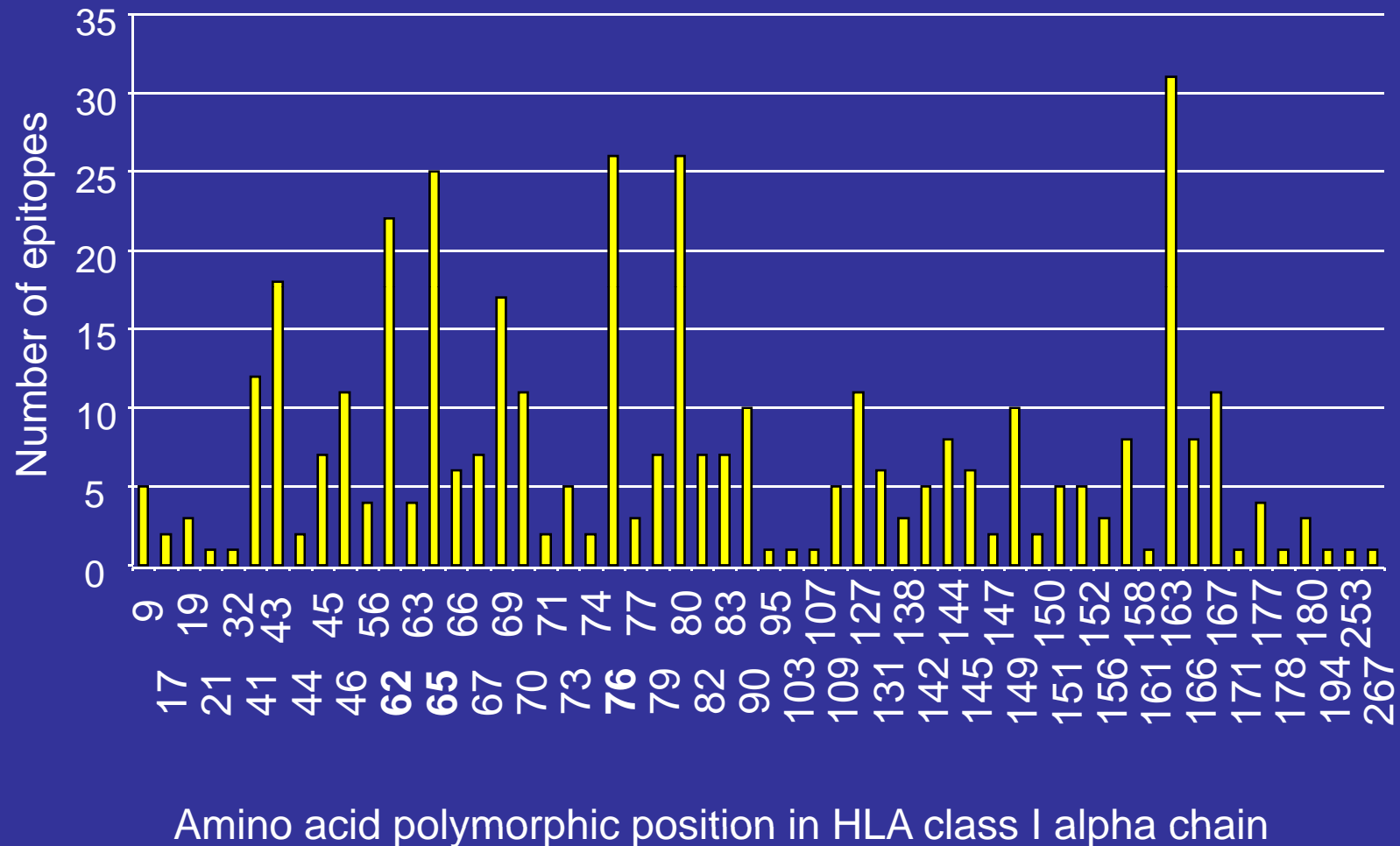


Figure 1.

polymorphic amino acid positions on HLA class I antigens
Number of epitopes defined by each position



El-Awar, Terasaki, et al. *Clinical Transplants* 2007, p. 182

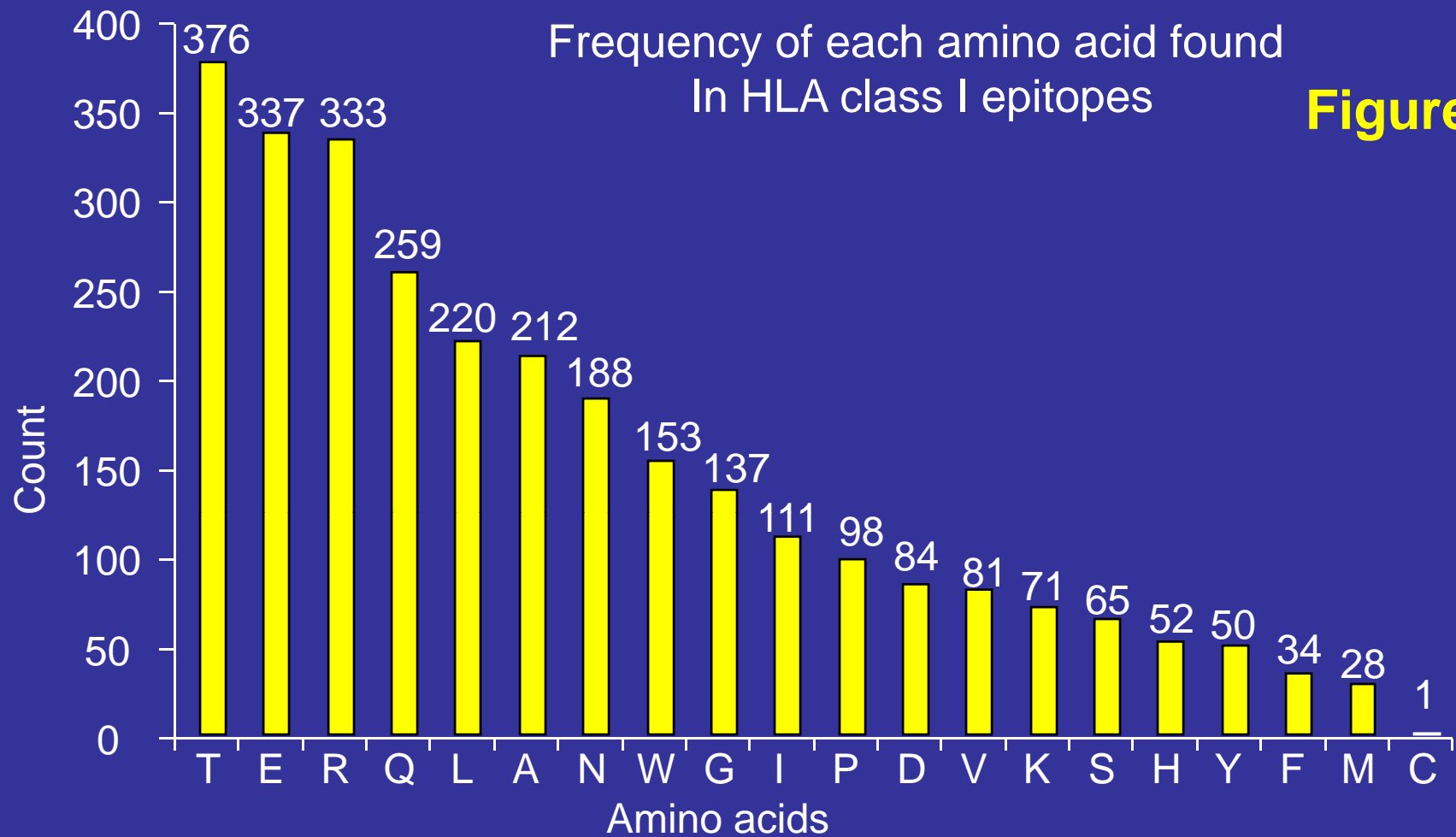
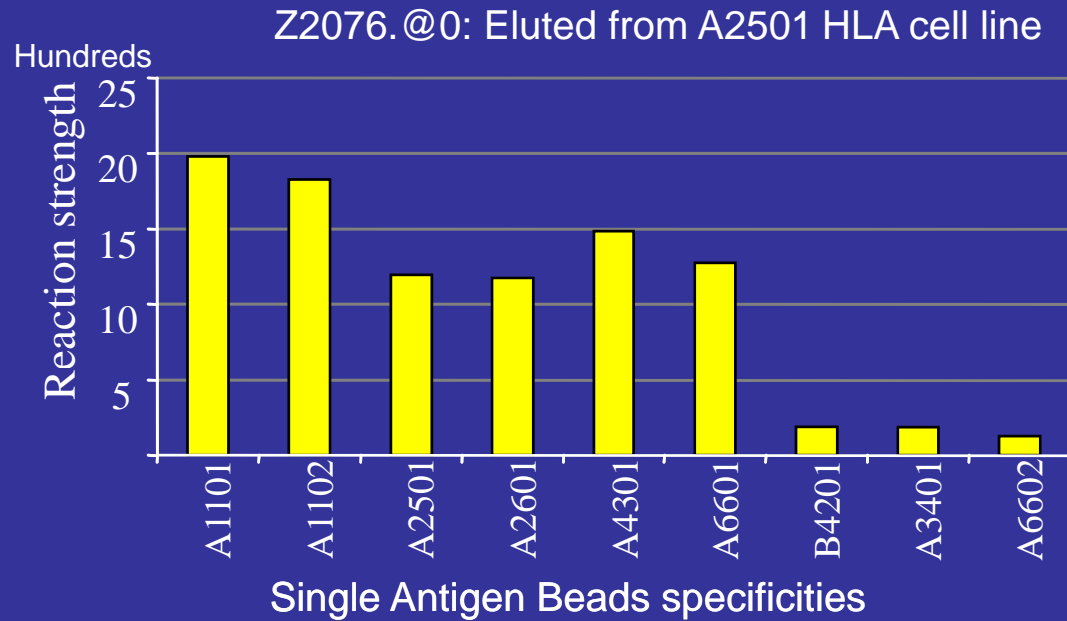


Figure 2.

Name	Letter	Name	Letter	Name	Letter	Name	Letter
Alanine	A	Methionine	M	Glycine	G	Serine	S
Cysteine	C	Asparagine	N	Histidine	H	Threonine	T
Aspartic Acid	D	Proline	P	Isoleucine	I	Valine	V
Glutamic Acid	E	Glutamine	Q	Lysine	K	Tryptophan	W
Phenylalanine	F	Arginine	R	Leucine	L	Tyrosine	Y

Figure 3



Antigen	aa position	
	163	166
A01011	R	D
A1101	R	E
A1102	R	E
A2501	R	E
A2601	R	E
A4301	R	E
A6601	R	E
B4201	T	F
A3401	T	E
A6602	E	E

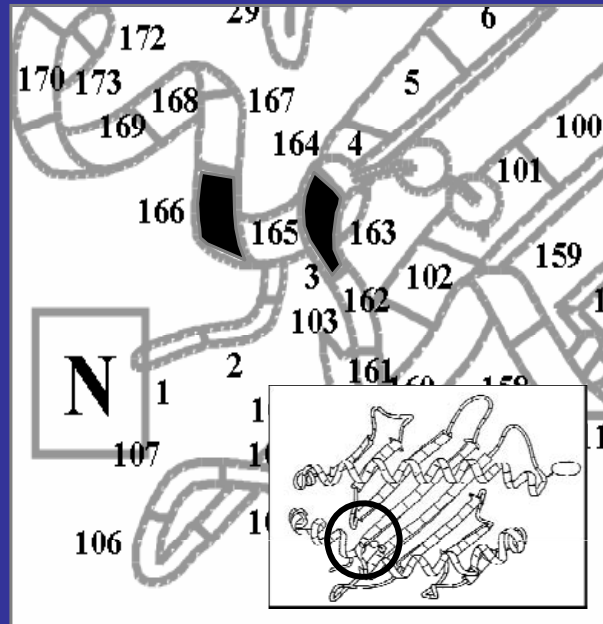
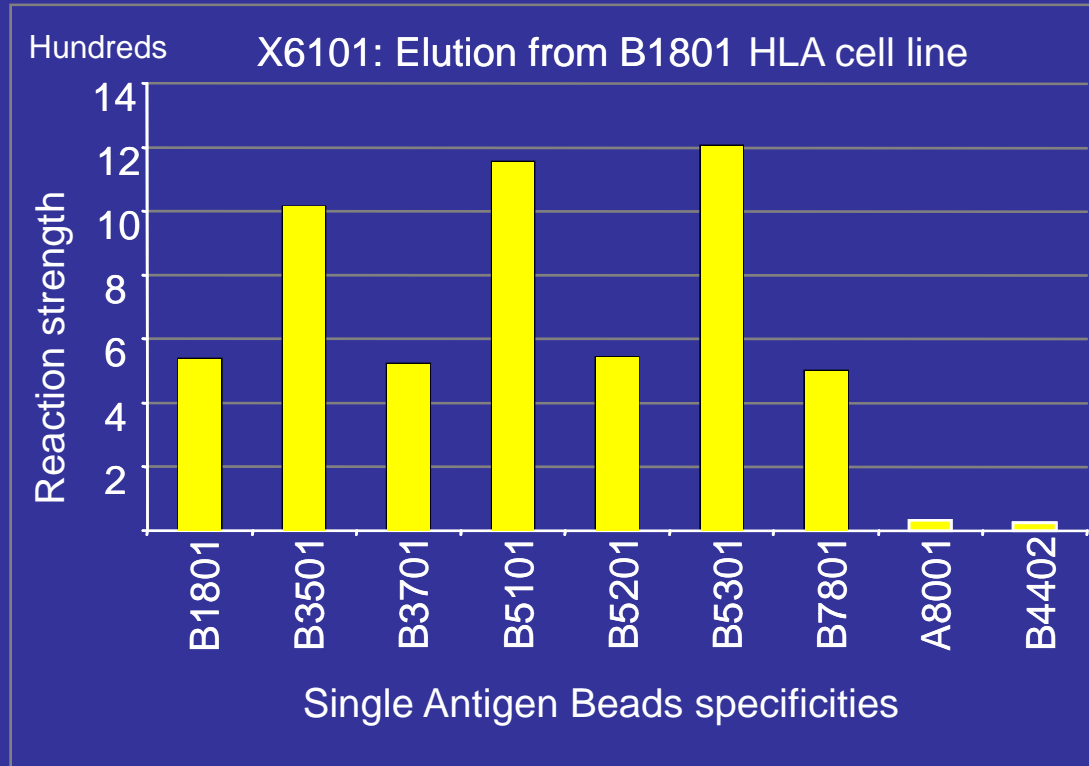


Figure 4



Antigen	aa position	
	45	62
B07021	E	R
B1801	T	R
B3501	T	R
B3701	T	R
B5101	T	R
B5201	T	R
B5301	T	R
B7801	T	R
A8001	E	E
B4402	K	R

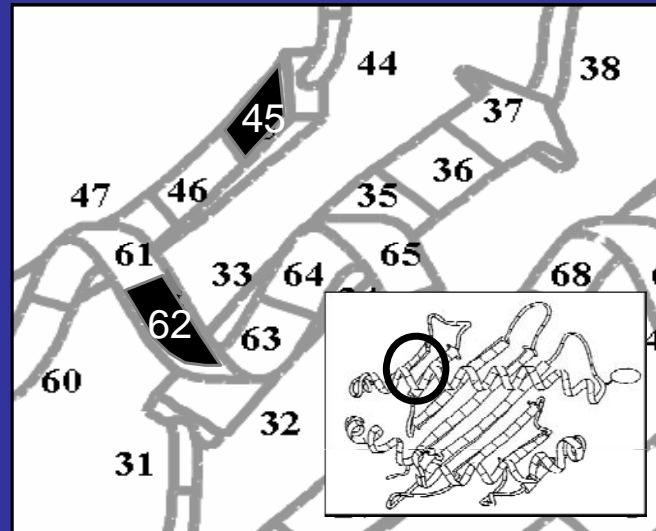
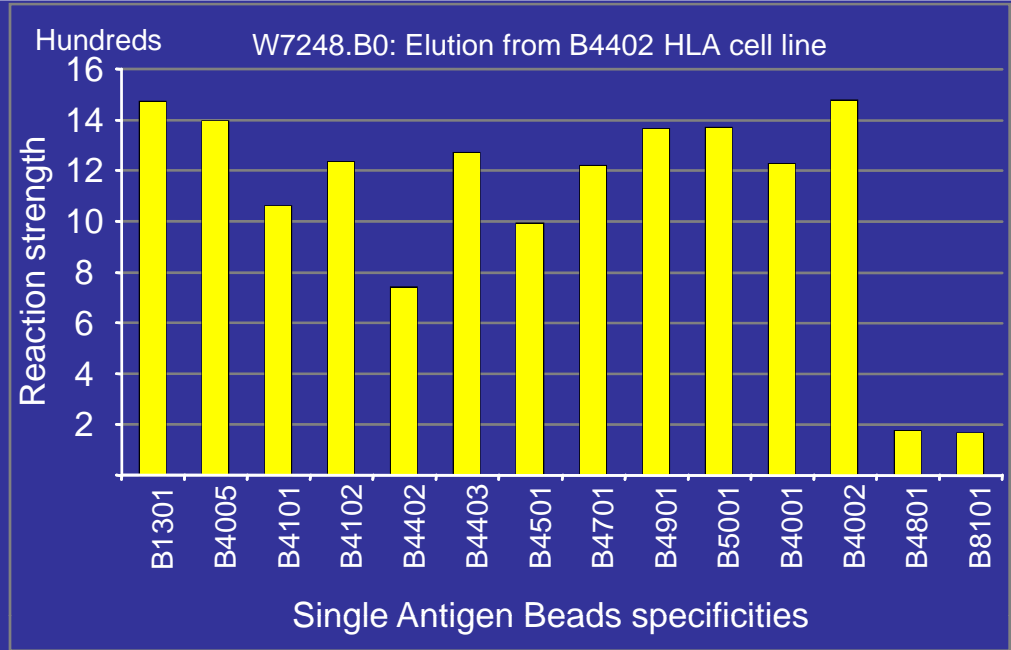


Figure 5



	aa & position
	41
B07021	A
B1301	T
B4005	T
B4101	T
B4102	T
B4402	T
B4403	T
B4501	T
B4701	T
B4901	T
B5001	T
B4001	T
B4002	T
B4801	A
B8101	A

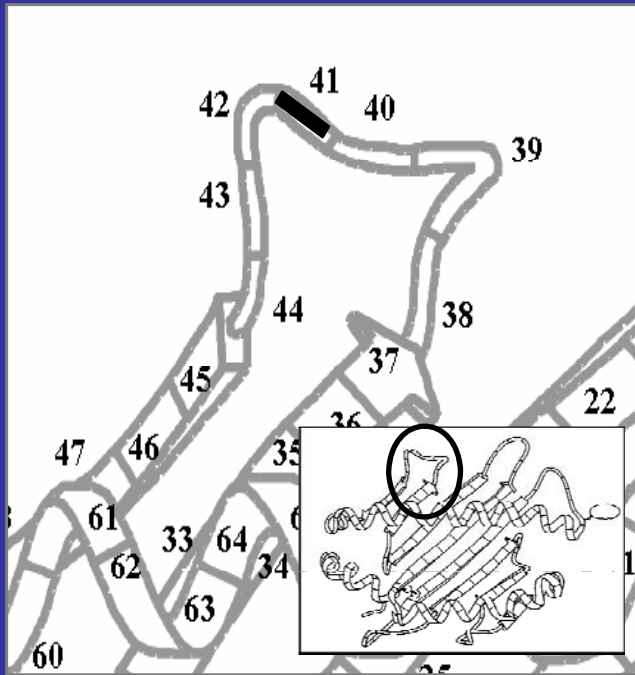
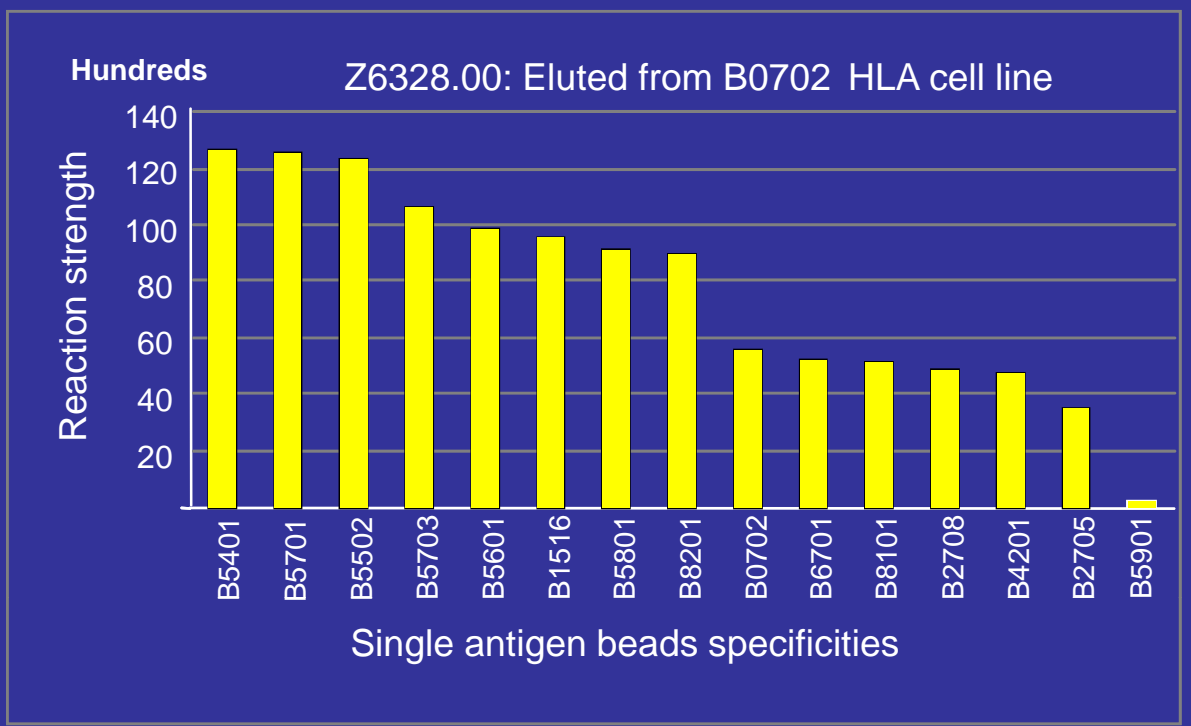


Figure 6



	aa & positions			aa & positions			
	43	69	76	43	69	76	
B07021	P	A	E	B07021	P	A	E
B5401	P	A	E	B8201	P	A	E
B5701	P	A	E	B6701	P	A	E
B5502	P	A	E	B8101	P	A	E
B5703	P	A	E	B2708	P	A	E
B5601	P	A	E	B4201	P	A	E
B1516	P	A	E	B2705	P	A	E
B5801	P	A	E	B5901	P	T	E

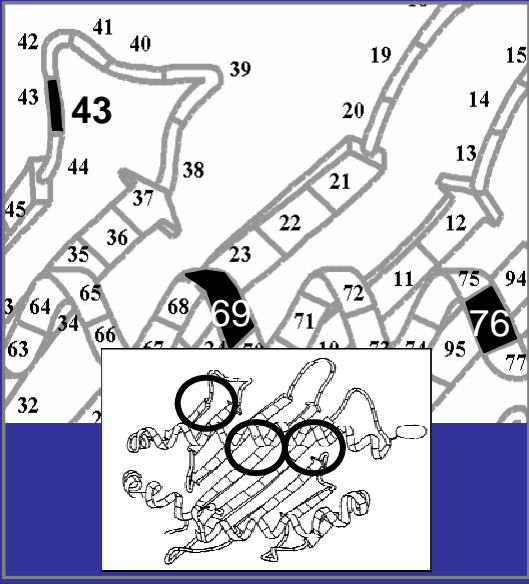


Figure 7

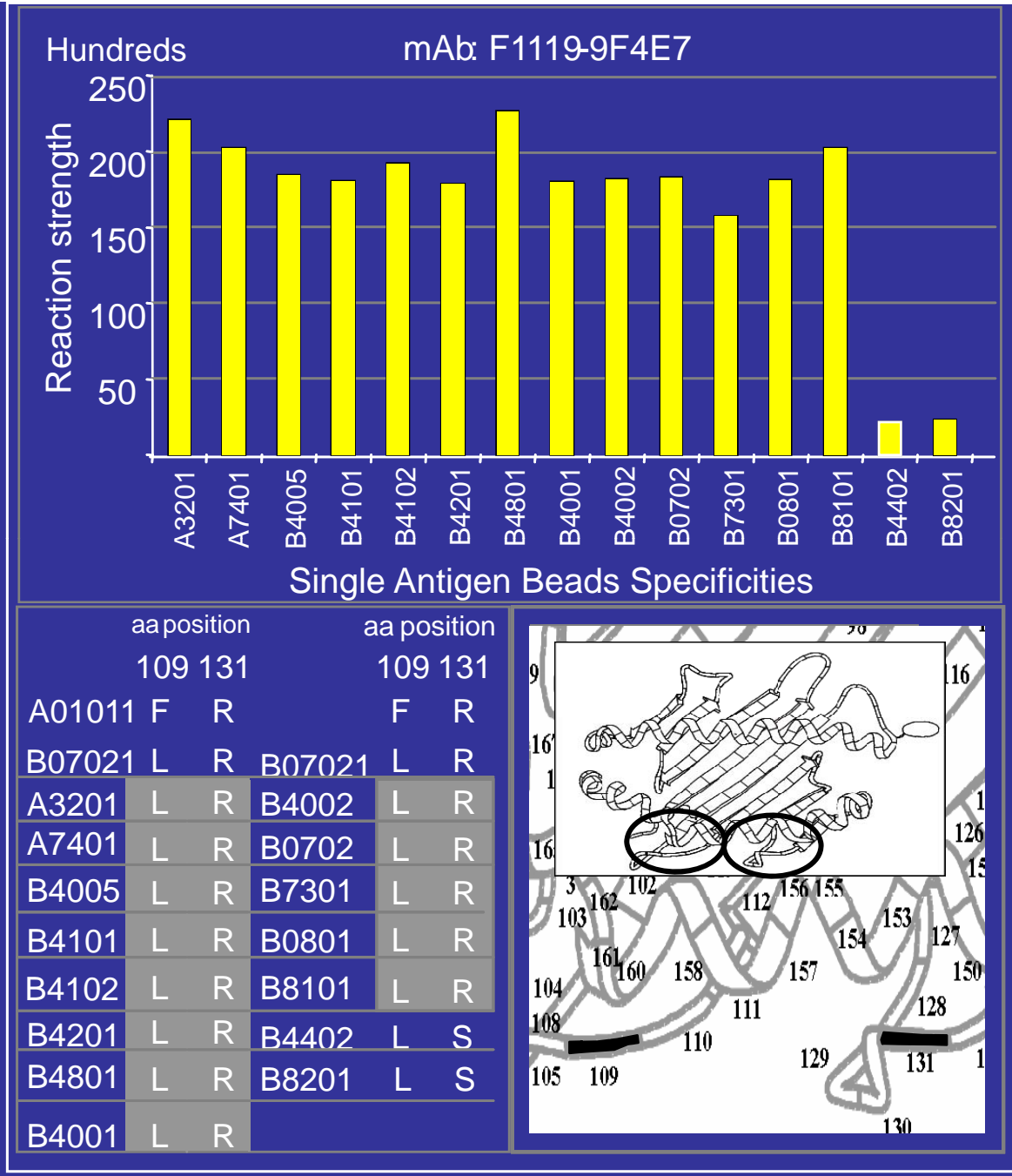


Figure 8

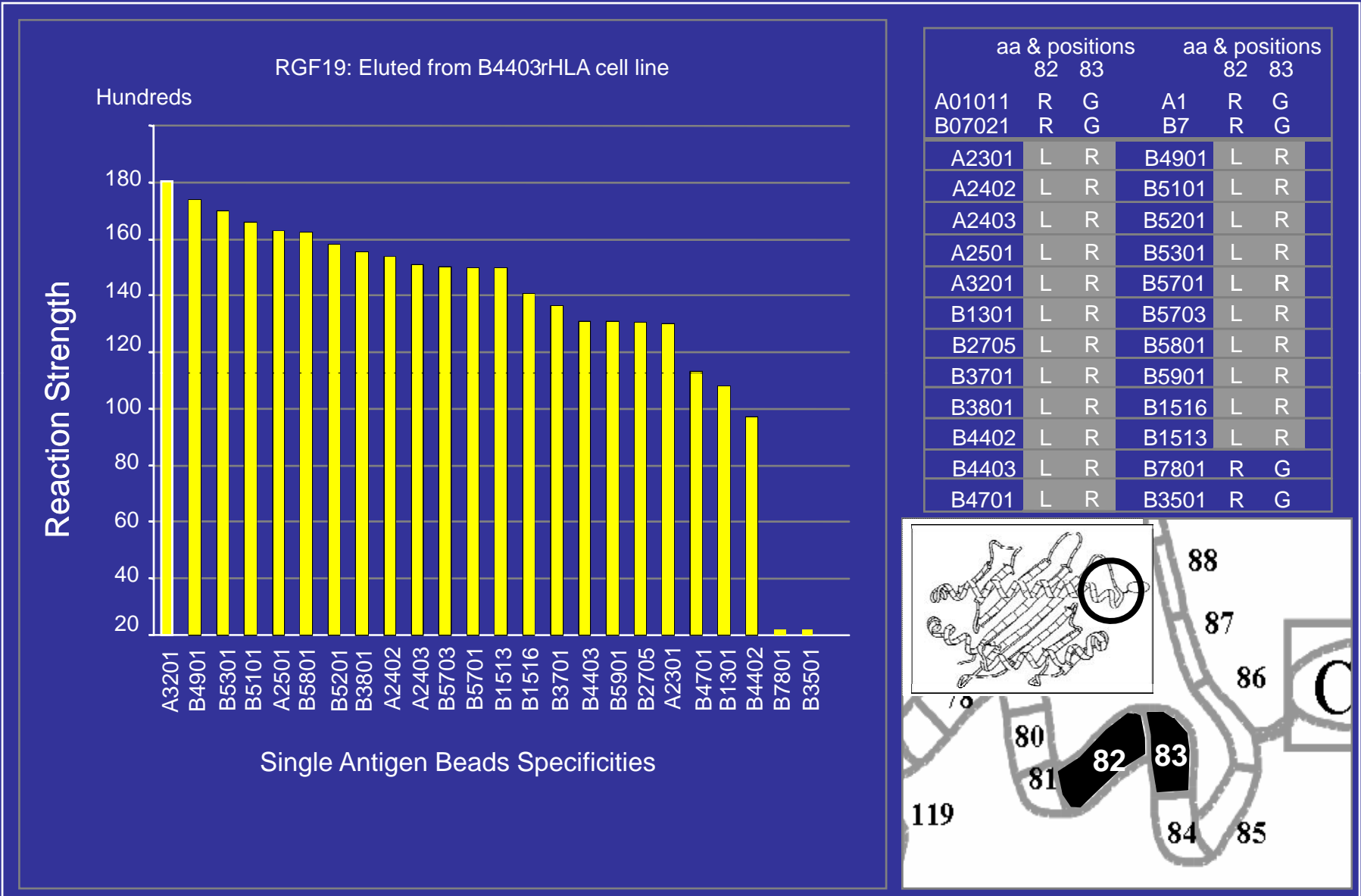
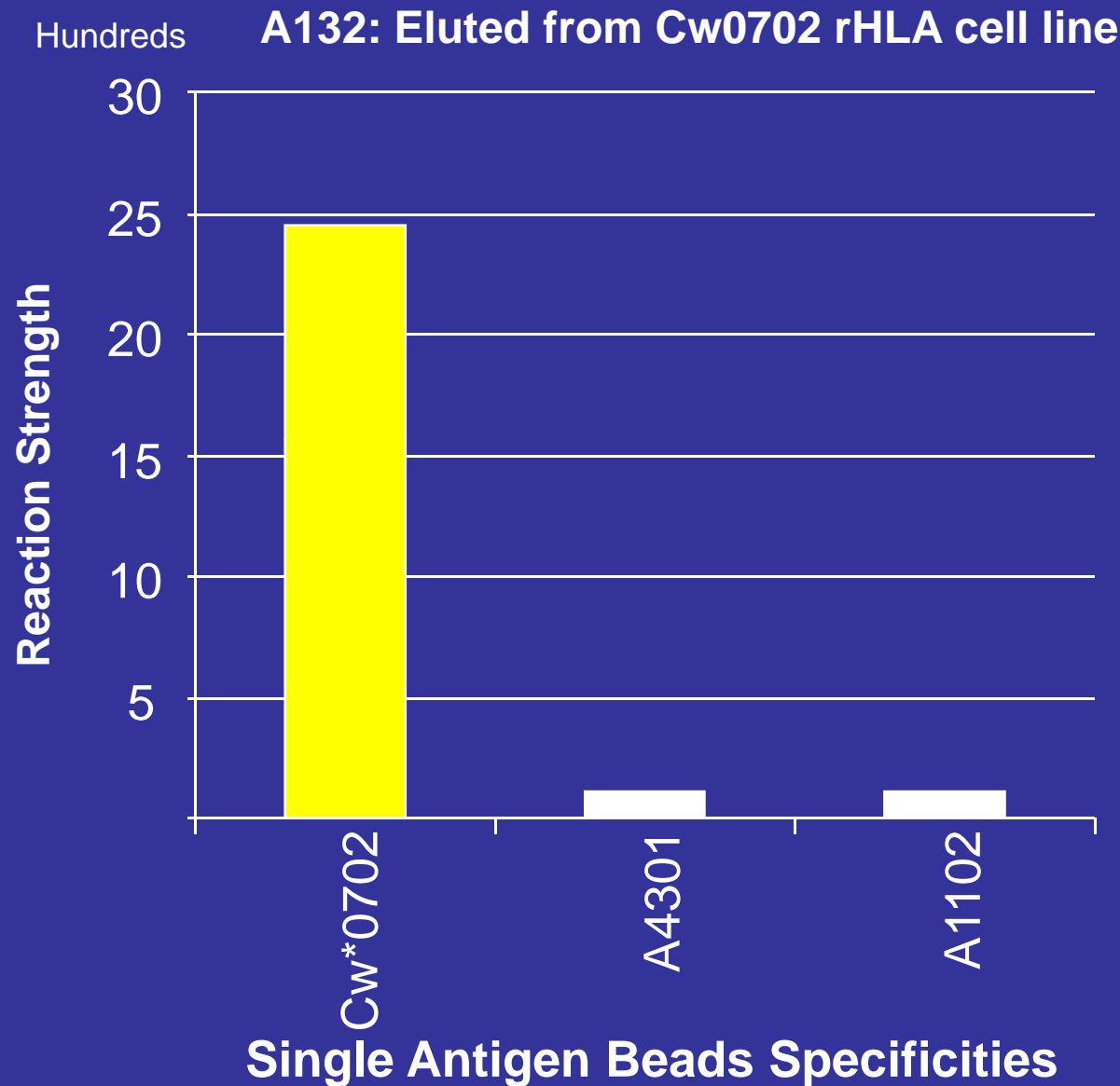


Figure 9



aa & positions

	193	194	199
A*01011	P	I	A
B*07021	P	I	A
Cw*0102	P	V	A
Cw*0702	P	L	A
A*1102	P	I	A
A*3401	A	V	A

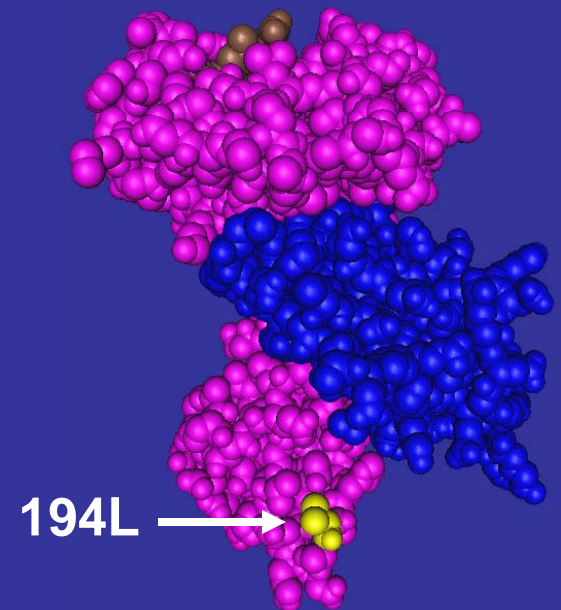


Figure 10

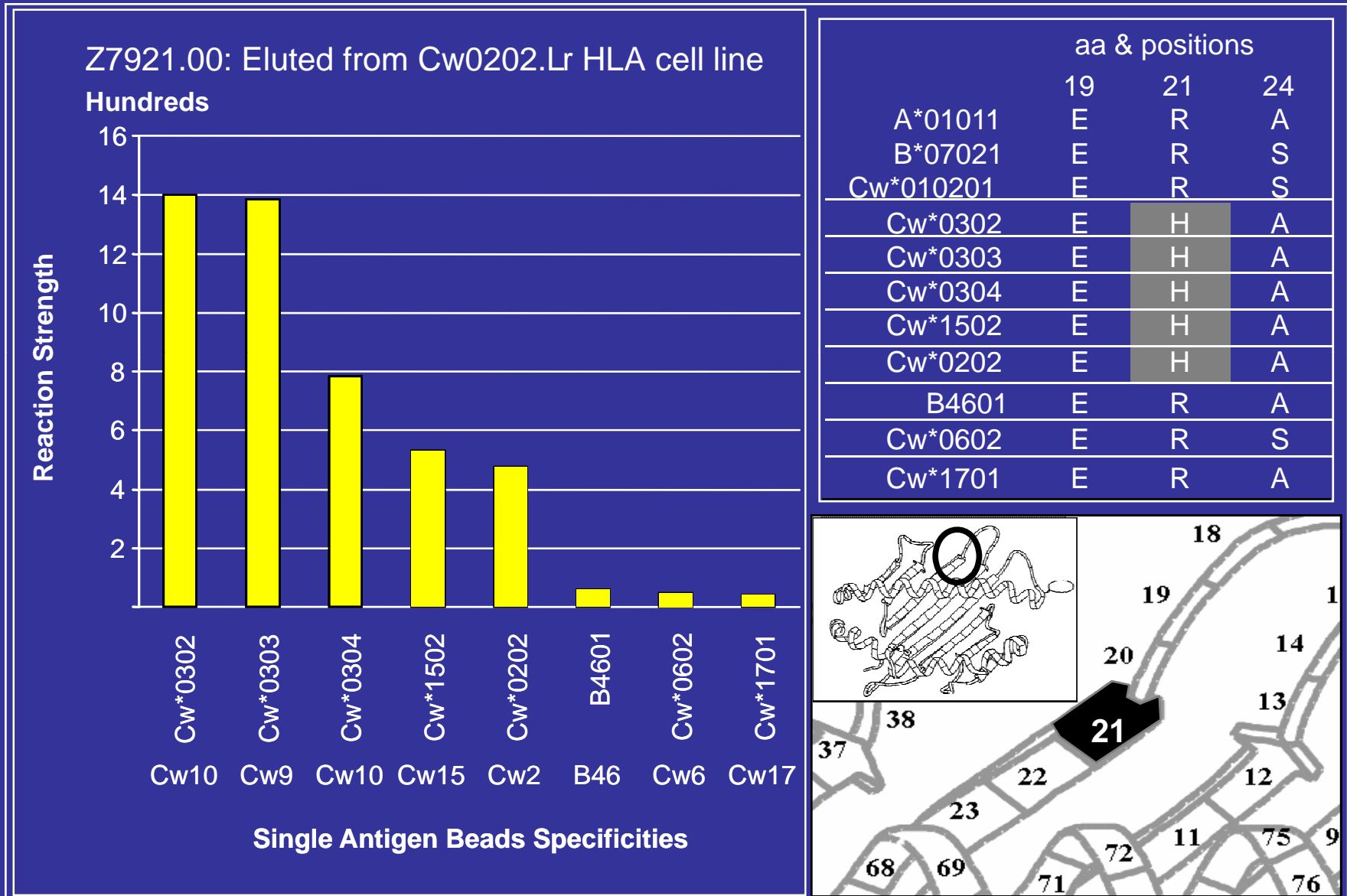


Figure 11

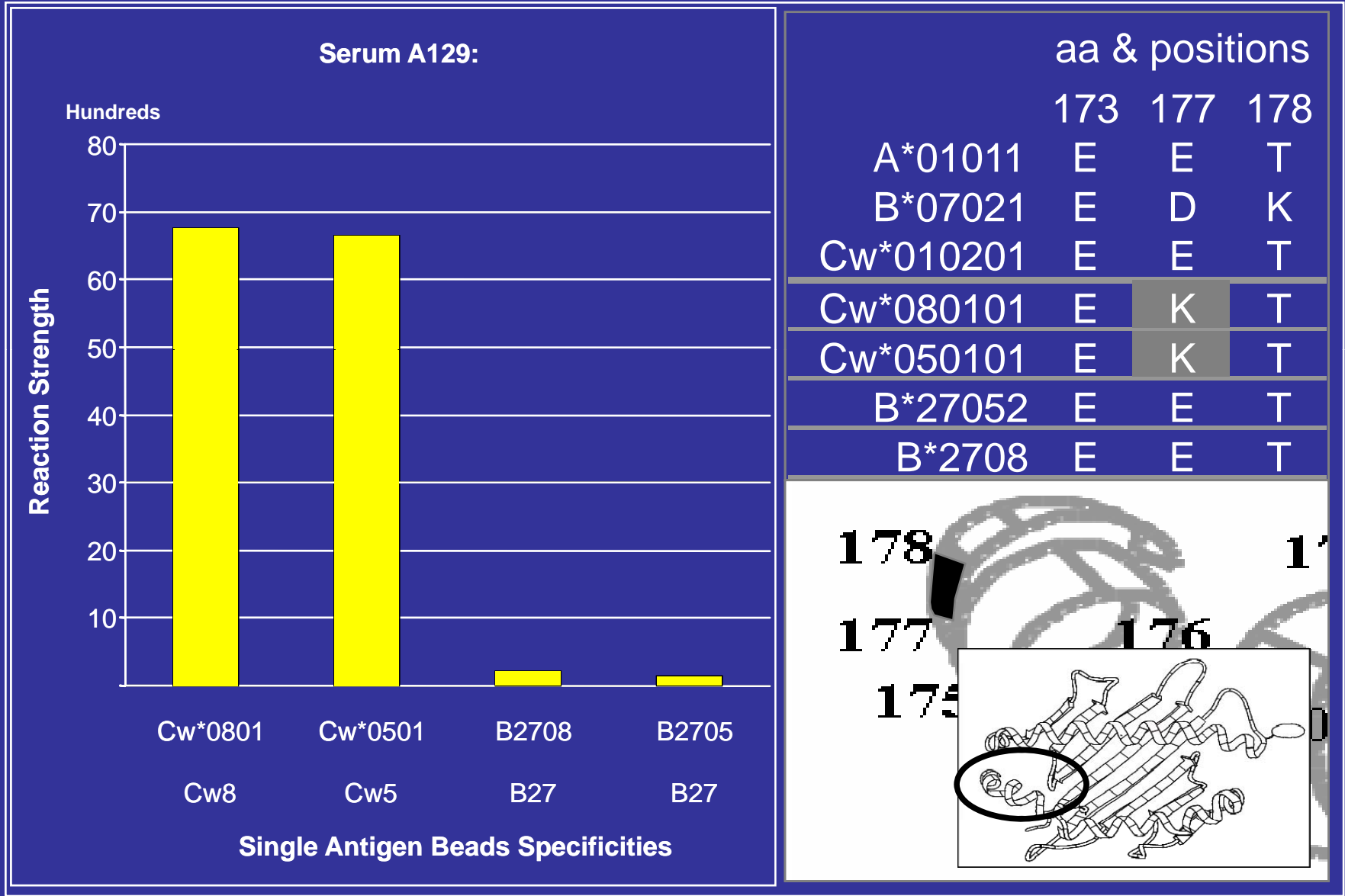


Figure 12

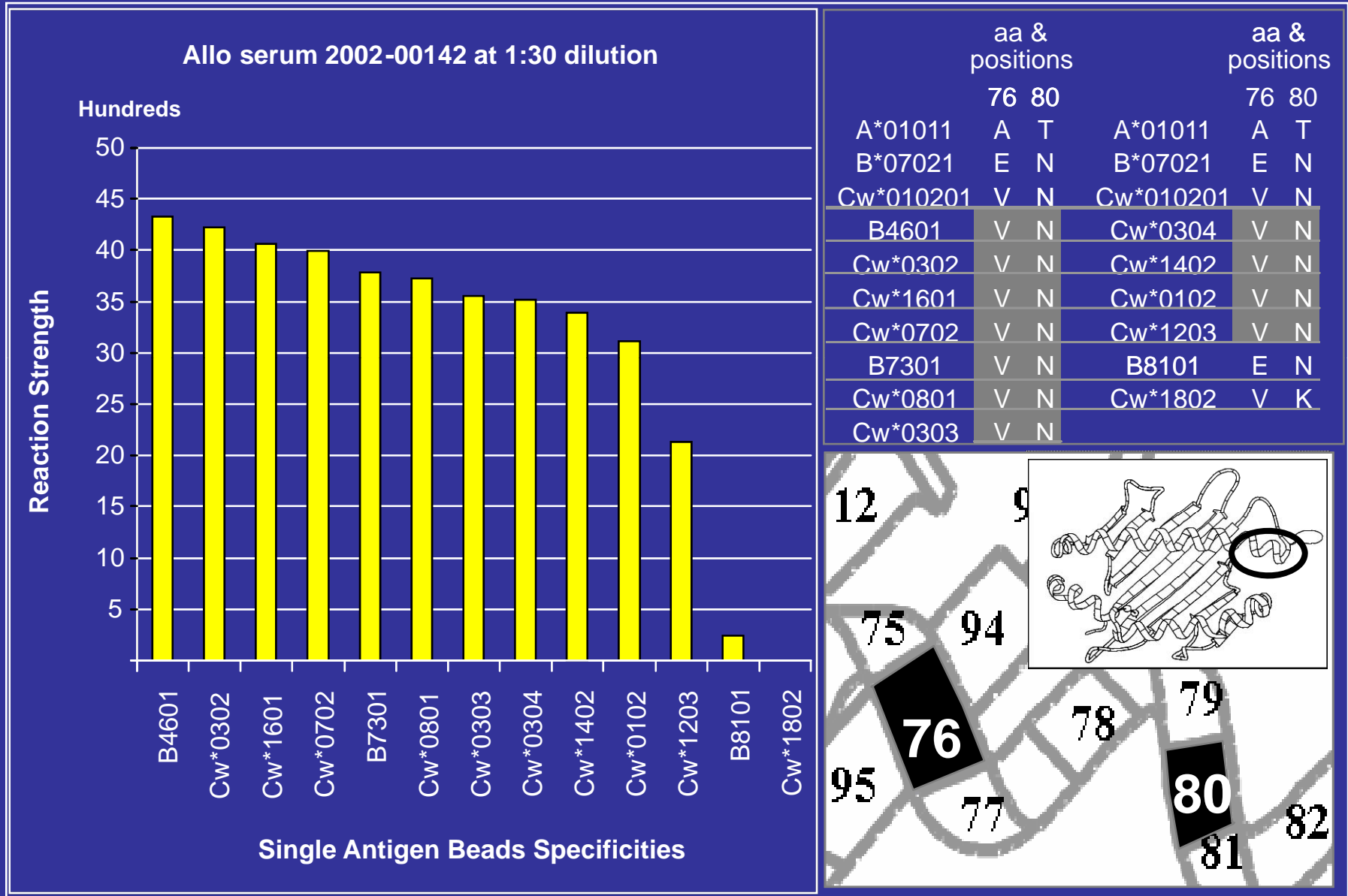


Figure 13

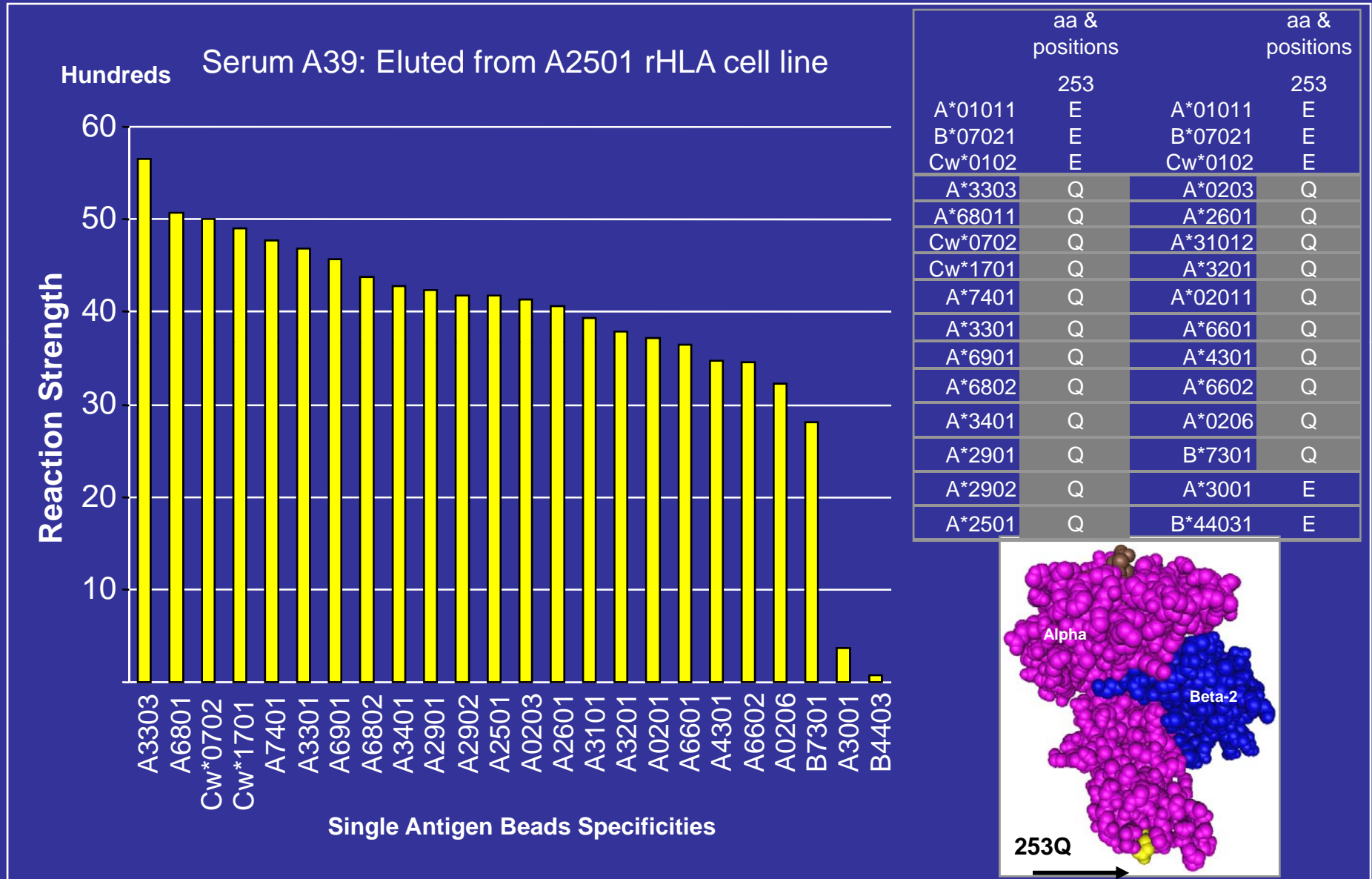


Figure 14

HLA-A1 epitopes (N=10)

Epitope#	Pos. /aa(s)
1	44K/ 150V/ 158V/
238	56G+65R
242	19E+79G
12	163R
13	144k
14	166D/ 167G
15	76A
16	90D
208	142I+144K/ 144K+145R
241	65R+90D / 43Q+90D / 90D+138M

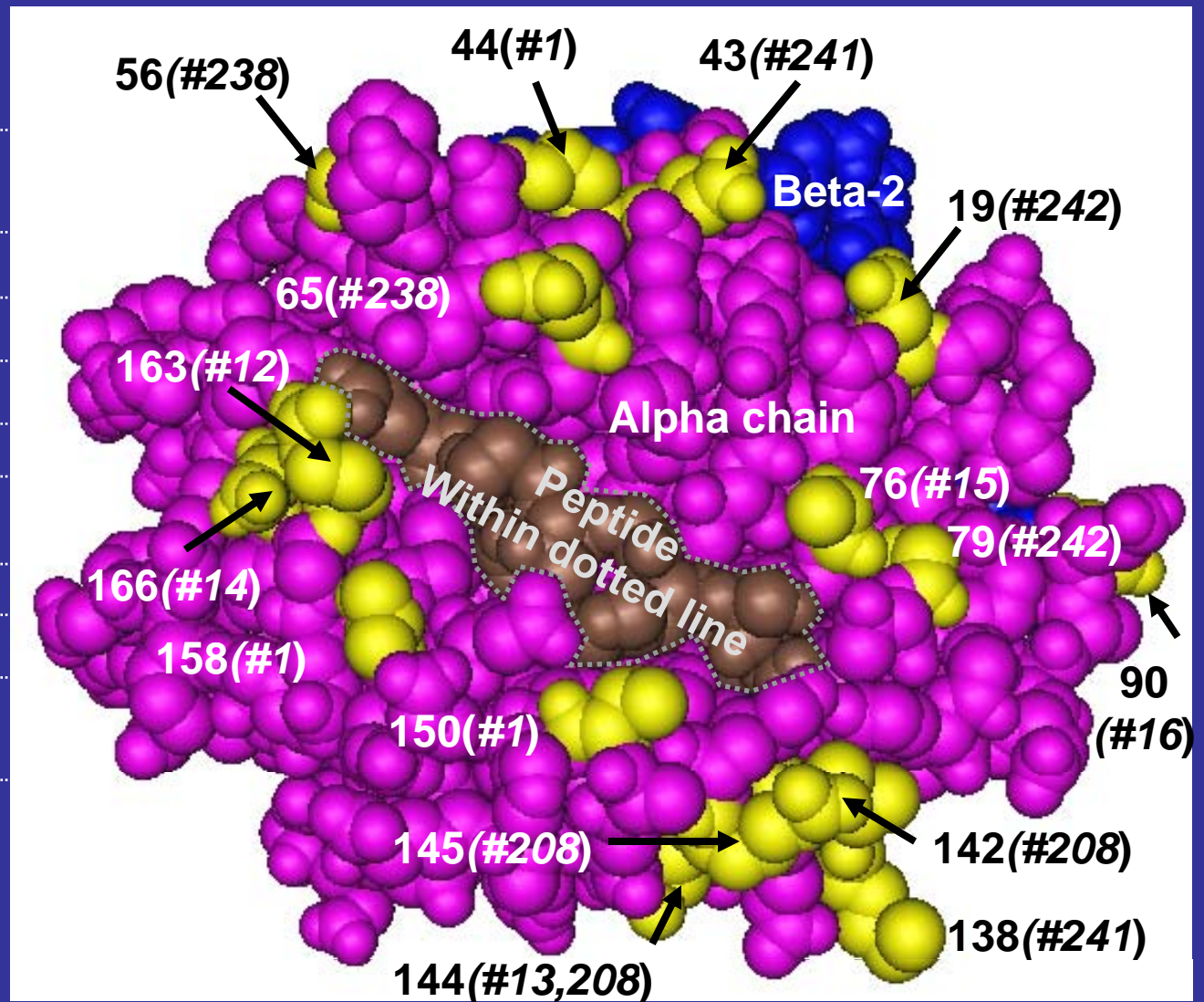


Figure 15

HLA-B8 Epitopes (N=16)

Epitope #	Pos. / aa (s)
7	65Q
11	(67F)+131R (or 177D,180E)/ 9D
32	167W
33	109L
204	109L +163T
205	109L+131R
233	79R +127N
420	69T+(74D)+158A+163T
20	177D/180E
22	69T
25	80N
215	62R+163T 76E+80N
216	(or 82R,83G)
225	(67F)+163T
226	66I+163T 69T+ 80N
227	(or 82R,83G)

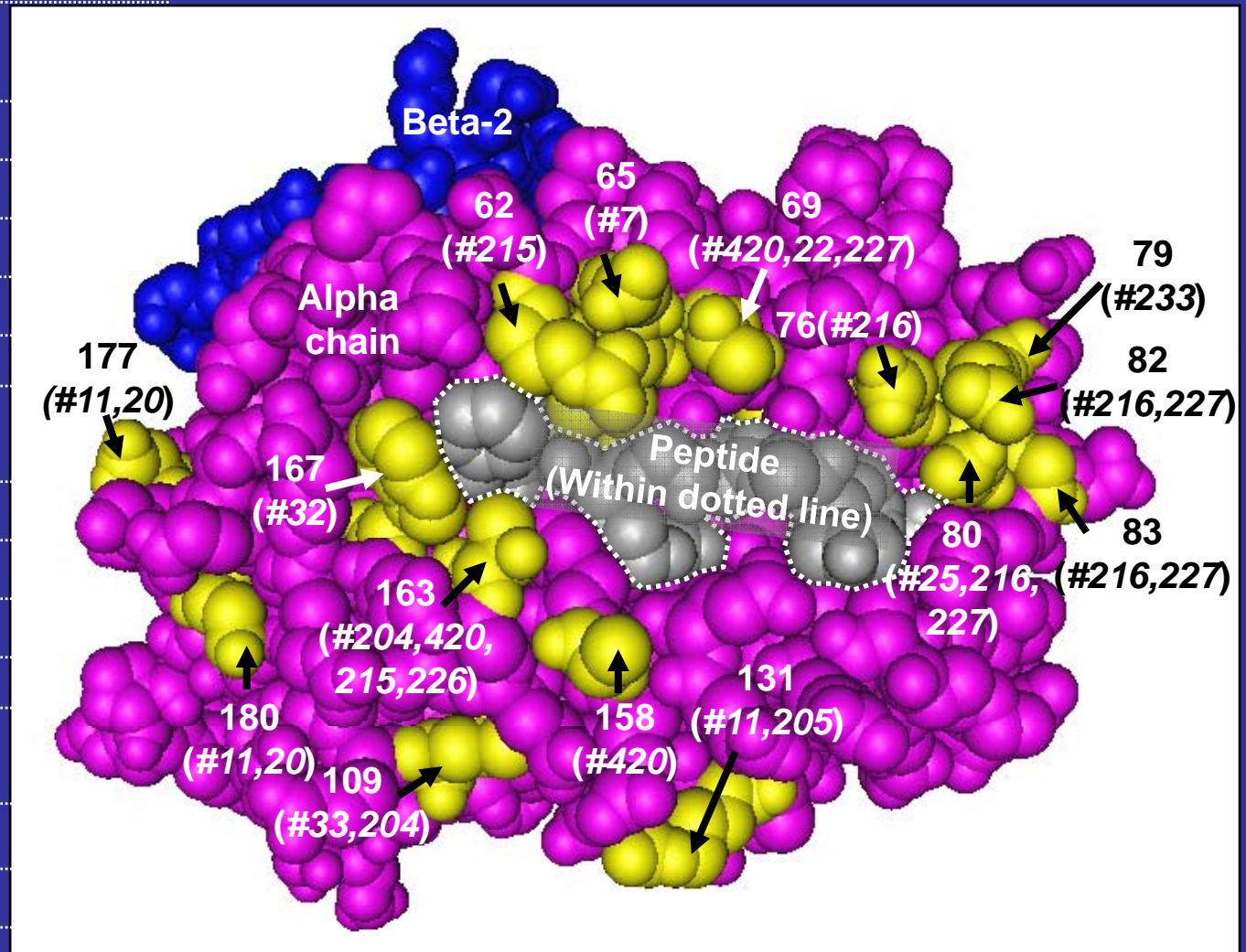


Figure 16

HLA-Cw4 Epitopes (N=4)

Epitope #	Pos. / aa(s)
32	167W
205	109L+131R
232	(103L)+163T
244	77N+80K

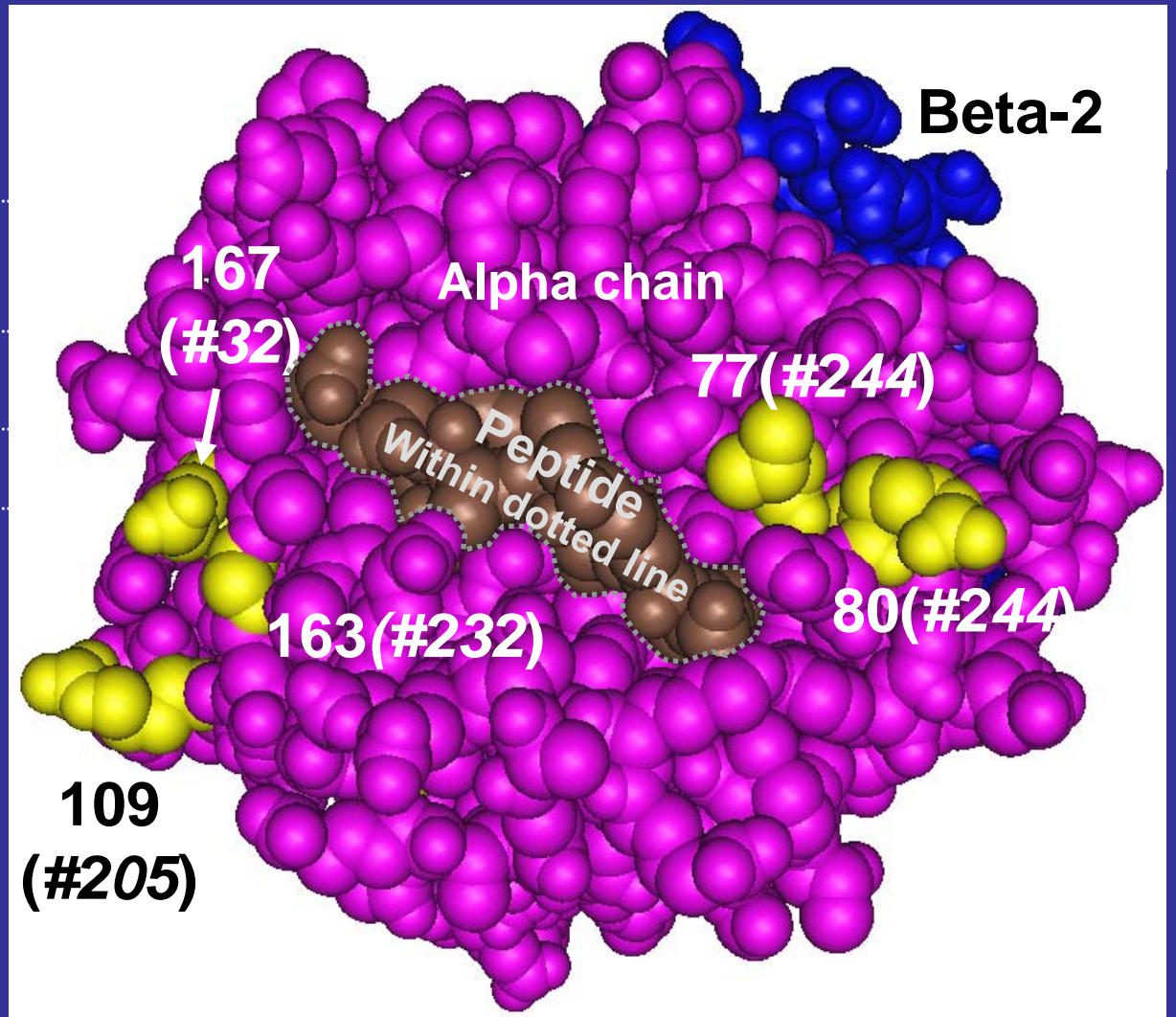
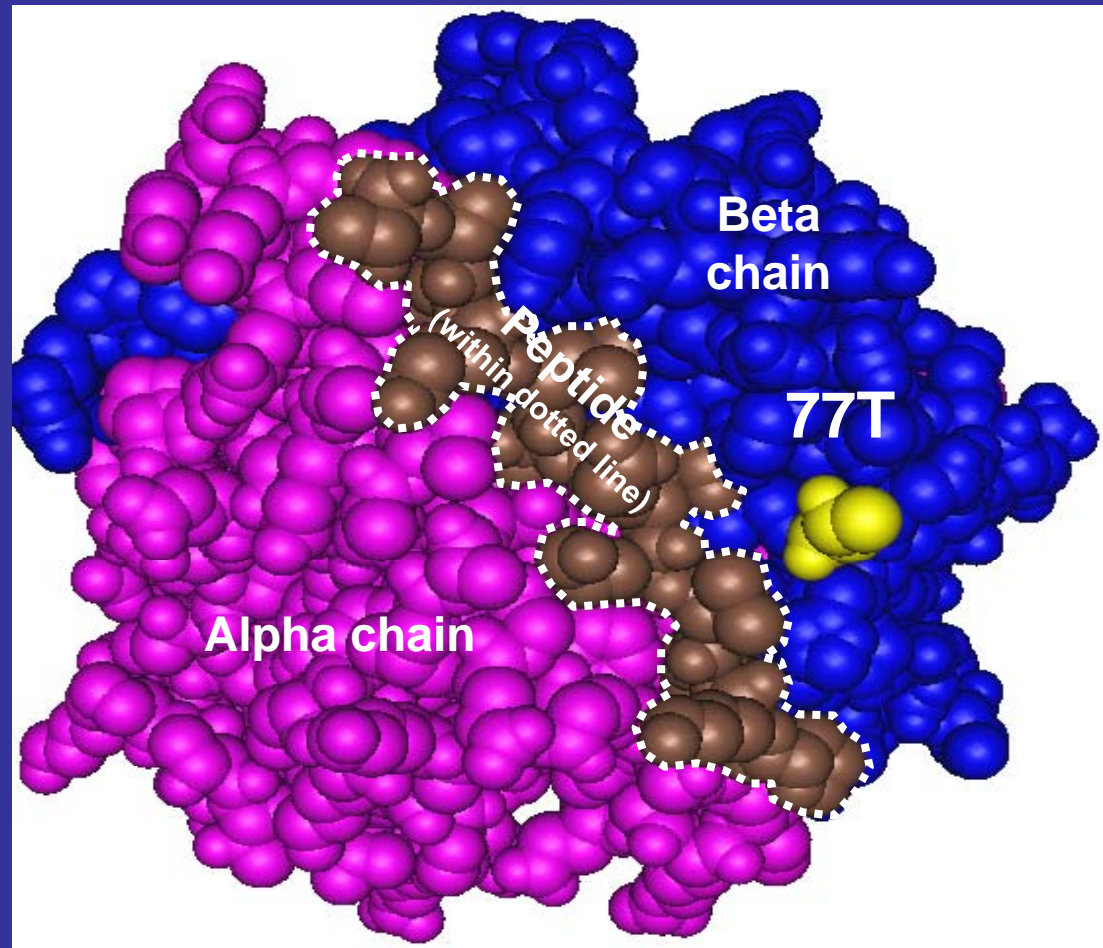


Figure 17

(Patient: DR17,-,; Donor: DR15,17): mm antigen DR15

Antigen	aa Pos.
	77
DR1	T
DR103	T
DR10	T
DR11	T
DR12	T
DR15(2)	T
DR16(2)	T
DR4	T
DR4	T
DR13(6)	T
DR14(6)	T
DR7	T
DR8	T
DR9	T
DR18(3)	N
DR17(3)	N



Data from: Cai, et al, Am J Transpl 6:2947, 2006

Figure 18

DQB epitope # 2002. Exclusive to DQ4 antigen

Antigen Allele	aa position
DQ5(1) DQB1*050101	P
DQ4 DQB1*0401	L
DQ4 DQB1*0402	L
DQ5(1) DQB1*050101	P
DQ5(1) DQB1*050201	P
DQ6(1) DQB1*060101	P
DQ6(1) DQB1*0602	P
DQ2 DQB1*020101	P
DQ2 DQB1*0202	P
DQ3(7) DQB1*030101	P
DQ3(8) DQB1*030201	P
DQ3(9) DQB1*030302	P

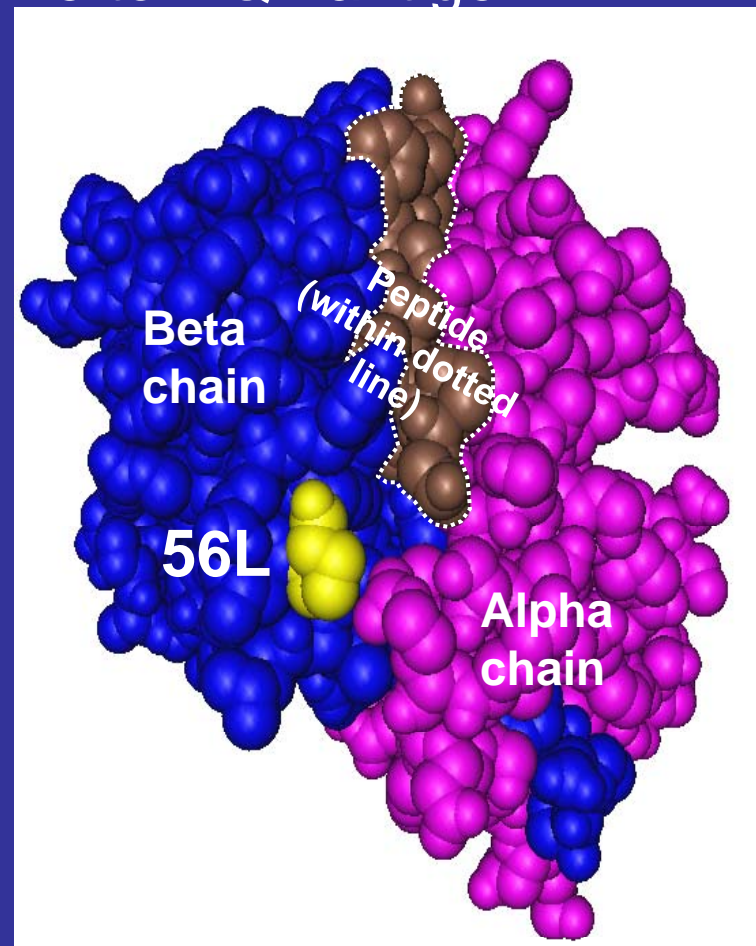


Figure 19

DQB epitope # 2012. Exclusive to DQ8,DQ9 antigens

		aa position	
		45	55
DQ1(5)	DQB1*050101	G	R
DQ8(3)	DQB1*030201	G	P
DQ9(3)	DQB1*030302	G	P
DQ5(1)	DQB1*050101	G	R
DQ5(1)	DQB1*050201	G	R
DQ6(1)	DQB1*060101	G	R
DQ6(1)	DQB1*0602	G	R
DQ2	DQB1*020101	G	L
DQ2	DQB1*0202	G	L
DQ4	DQB1*0401	G	R
DQ4	DQB1*0402	G	R
DQ7(3)	DQB1*030101	E	P

Peptide
Within dotted line
(partially shown)

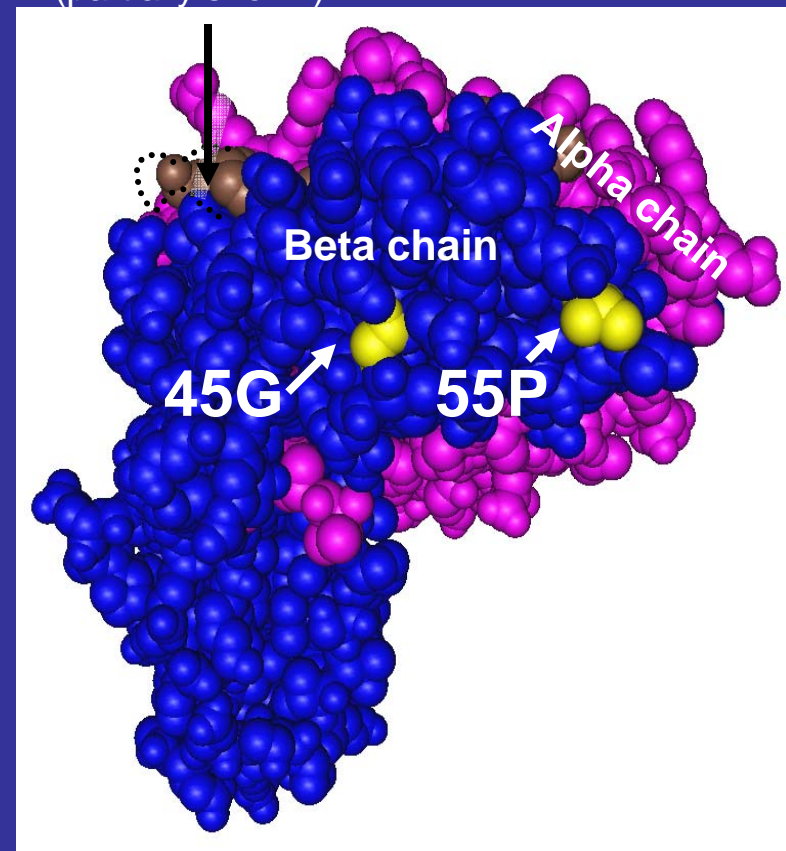


Figure 20

DQA epitope #2017. Exclusive to DQA1*0201

		aa position		
		47	52	54
DQA1	DQA1*010101	R	S	F
DQA2	DQA1*0201	K	H	L
DQA1	DQA1*010101	R	S	F
DQA1	DQA1*010204	R	S	F
DQA1	DQA1*010201	R	S	F
DQA1	DQA1*010202	R	S	F
DQA1	DQA1*010203	R	S	F
DQA1	DQA1*0103	R	S	F
DQA3	DQA1*030101	Q	R	F
DQA3	DQA1*0303	Q	R	F
DQA4	DQA1*040102	C	R	F
DQA4	DQA1*040101	C	R	F
DQA5	DQA1*050101	C	R	F
DQA5	DQA1*0505	C	R	F
DQA5	DQA1*050102	C	R	F
DQA6	DQA1*060102	C	R	F
DQA6	DQA1*060101	C	R	F

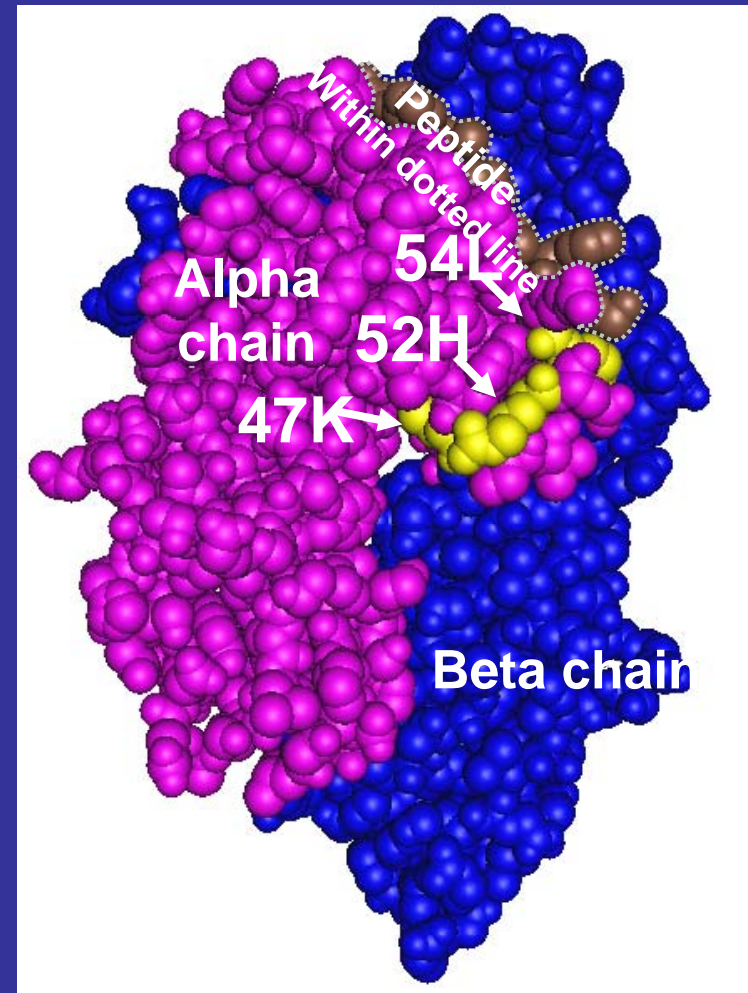


Figure 21

MICA Epitope

Antigen	aa position
MICA*001	Q
MICA*002	Q
MICA*004	Q
MICA*007	Q
MICA*009	Q
MICA*012	Q
MICA*018	Q
MICA*027	Q
MICA*017	R



Figure 22

MICA Epitope

Antigens	aa Positions		
	36	129	173
MICA*004	Y	V	E
MICA*009	Y	V	E
MICA*027	Y	V	E
MICA*001	C	M	K
MICA*002	C	M	K
MICA*007	C	M	K
MICA*012	C	M	K
MICA*017	C	M	K
MICA*018	C	M	K

