

HA analogs	HLA class II molecules				
	DRB1*0101	DRB1*0401	DRB1*0701	DRB1*1101	DRB5*0101
HA	0.9	37	29	20	8
Daa1	0.6	32	17	9	13
Daa2	2	46	2 000	390	60
Daa3	6 400	80 000	>100 000	>100 000	9 500
Daa4	8 000	80 000	>100 000	>100 000	>10 000
Daa5	3 400	70 000	>100 000	>100 000	>10 000
Daa6	3	3 000	>100 000	30 000	4 000
Daa7	120	2 000	>100 000	>100 000	>10 000
Daa8	33	7 500	>100 000	30 000	>10 000
Daa9	16	1 000	1800	7 000	4 000
Daa10	260	3 000	>100 000	60 000	4 000
Daa11	90	1 000	7 000	9 000	700
Daa12	3	300	64	450	17
Daa13	0.6	30	23	20	7
Aib1	0.3	20	11	18	3
Aib2	8	95	7 700	4 000	500
Aib3	60	>100 000	460	>100 000	>10 000
Aib4	10	75	6 000	4 000	280
Aib5	1	30	780	300	600
Aib6	0.7	55 000	75	150	5
Aib7	6.8	45	4 200	6 000	900
Aib8	0.8	140	90	550	140
Aib10	9	490	16 000	8 000	5 000
Aib11	20	25	3 000	350	95
Aib12	0.7	32	9	100	5
Aib13	0.2	6	6	8	2
Pep1	0.5	13	120	74	5
Pep2	45	740	8 400	8 000	3 700
Pep3	4 000	>10 000	>100 000	>100 000	14 000
Pep4	5	14	710	6 000	280
Pep5	9	200	3 000	20 000	2 500
Pep6	0.4	82	290	45	10
Pep7	0.3	450	16	200	15
Pep8	0.4	20	93	450	13
Pep9	0.4	25	28	6	6
Pep10	2	30	2 000	220	49
Pep11	0.4	49	14	550	13
Pep12	0.3	4	10	14	3

**Table S1. IC<sub>50</sub> of HA peptide and analogs containing Daa, Aib and Pep modifications**

36 analogs containing Daa (D-amino acid), Aib (amino-isobutyric acid) or Pp (peptoid) were submitted to competitive ELISA specific for five HLA-DR molecules. Mean IC<sub>50</sub> were expressed in nM and result from at least two independent experiments.