

	MHC-II	MHC-II	MHC-II	MHC-II
MHC Haplotype H-2^b (C57BL/6 mice)	I-A _α ^b	I-A _β ^b	(I-E _α ^b not present)	I-E _β ^b
Functional MHC-II available in H-2^b	I-A _α ^b I-A _β ^b		No I-E available in H-2 ^b	
MHC Haplotype H-2^k (CBA mice)	I-A _α ^k	I-A _β ^k	I-E _α ^k	I-E _β ^k
Functional MHC-II available in H-2^k	I-A _α ^k I-A _β ^k		I-E _α ^k I-E _β ^k	
H-2^{b/k} (C57BL/6 x CBA)	I-A _α ^b	I-A _β ^b	(I-E _α ^b not present)	I-E _β ^b
	I-A _α ^k	I-A _β ^k	I-E _α ^k	I-E _β ^k
Functional MHC-II available in H-2^{b/k}	Not only	I-A _α ^b I-A _β ^b	I-A _α ^k I-A _β ^k	I-E _α ^k I-E _β ^k
	But also	I-A _α ^b I-A _β ^k	I-A _α ^k I-A _β ^b	I-E _α ^k I-E _β ^b

S2 Table. Why there are more variants of MHC-II restricting molecules available in C57BL/6 x CBA F1 mice than in C57BL/6 or CBA mice? A promoter mutation disrupts production of I-E_α^b in C57BL/6 mice (Grey font), which are therefore unable to produce MHC-II I-E (Grey). In contrast, H-2^k mice can produce both I-A_α^kI-A_α^k and I-E_α^kI-E_α^k. C57BL/6 x CBA F1 mice have an even bigger repertoire of possible functional MHC-II isoforms available due to heterodimerization of α and β subunits from H-2^b and H-2^k haplotypes.