

**Table S3:** Predicted processing efficiency and binding affinity to H2-K<sup>b</sup> of polymorphic TB10.4<sub>4-11</sub> epitopes. Bold letters indicate polymorphic substitution

Variants	15mer	epitope	Proteasome score	TAP score	MHC score	Processing score	Total score	MHC ic50
WT	IMYNY <b>P</b> AMLGHAGDM	IMYNY <b>P</b> AM	0.94	0.23	-0.87	1.17	0.30	7.4
P9S	IMYNY <b>S</b> AMLGHAGDM	IMYNY <b>S</b> AM	0.82	0.23	-0.75	1.05	0.30	5.6
A10T	IMYNY <b>P</b> TMLGHAGDM	IMYNY <b>P</b> TM	1.07	0.23	-0.81	1.30	0.49	6.5
A10V	IMYNY <b>P</b> VMLGHAGDM	IMYNY <b>P</b> VM	1.09	0.23	-0.98	1.32	0.35	9.5
M11I	IMYNY <b>P</b> AILGHAGDM	IMYNY <b>P</b> AI	1.07	0.33	-0.88	1.40	0.52	7.6
Nonbinder	IM <b>A</b> N <b>A</b> PAMLGHAGDM	IM <b>A</b> N <b>A</b> PAM	0.94	0.15	-3.13	1.10	-2.04	1356.5