

Supplementary information, Table S5 Summary of the bond lifetimes of TCR–pMHC or TCR–pMHC–CD8 binding in the 2–5 pN, 9–12 pN and 16–19 pN force regimes, along with the corresponding error bars.

Force regime	2–5 pN			9–12 pN			16–19 pN		
TCR–pMHC pairs	Force (pN)	Mean lifetime (s)	± SEM	Force (pN)	Mean lifetime (s)	± SEM	Force (pN)	Mean lifetime (s)	± SEM
2C-TCR–R4-MHC–CD8	4.40	0.19	0.05	9.68	0.95	0.09	17.38	0.22	0.08
2C-TCR–R4-MHC	3.97	0.25	0.05	9.38	0.31	0.05	17.14	0.11	0.02
2C-TCR–L4-MHC–CD8	3.25	0.16	0.03	9.21	0.10	0.04	16.10	0.05	0.03
2C-TCR–L4-MHC	3.86	0.19	0.03	10.45	0.09	0.01	16.61	0.02	0.01
m33-TCR–R4-MHC–CD8	4.06	0.41	0.14	10.21	10.03	3.37	16.23	4.40	1.82
m33-TCR–R4-MHC	4.64	1.45	0.55	10.03	2.95	0.51	17.16	2.30	0.52
m33-TCR–L4-MHC–CD8	4.23	1.62	0.86	9.87	8.46	2.68	17.78	0.68	0.27
m33-TCR–L4-MHC	4.37	1.28	0.47	9.40	1.49	0.90	16.80	0.31	0.08
m67-TCR–R4-MHC–CD8	4.01	0.25	0.09	9.77	7.20	1.45	17.62	4.47	1.02
m67-TCR–R4-MHC	5.34	0.19	0.11	9.92	6.50	1.49	17.46	4.22	1.72
m67-TCR–L4-MHC–CD8	4.16	0.19	0.05	9.82	7.51	1.83	17.57	2.55	0.96
m67-TCR–L4-MHC	4.22	0.57	0.21	9.78	1.72	0.50	16.10	1.61	0.85
2C-TCR–R4-MHC–CD8 (Ile2Ala)	4.28	0.46	0.12	10.22	0.46	0.11	17.08	0.14	0.04
MAG-IC3-TCR–MAGE- A3	3.57	0.44	0.07	10.17	8.98	2.36	17.28	0.44	0.43
MAG-IC3-TCR–MAGE- A3–CD8	3.90	2.37	0.90	10.39	5.82	2.20	17.30	0.99	0.49
MAG-IC3-TCR–Titin	3.25	0.27	0.06	10.73	4.42	2.84	17.81	3.45	1.27

MAG-IC3-TCR-Titin- CD8	3.58	0.12	0.02	10.32	7.25	2.29	17.46	2.78	1.82
MEL8-TCR-MelanA	4.11	0.19	0.11	9.62	0.69	0.21	16.88	0.45	0.16
MEL8-TCR-MelanA- CD8	4.14	0.27	0.12	9.87	1.36	0.32	16.63	0.30	0.13
MEL8-TCR-IMP2	4.09	0.21	0.10	9.67	0.51	0.18	16.89	0.09	0.03
MEL8-TCR-IMP2-CD8	4.45	0.14	0.07	10.24	1.48	0.57	17.03	0.21	0.13