

Sensorgrams obtained for each replicate of peptide 13 / Phd<sub>STm</sub><sup>52-73</sup> E66A (analyte) binding to Doc<sub>STm</sub> (ligand). Six concentrations of the analyte were flown over the surface in a single cycle, ranging from 50 nM to 0.206 nM (3-fold dilutions). The association and dissociation times were 80 s and 1000 s, respectively.

## Summary of the fitted parameters obtained from each SPR measurement of peptide 13.

Replicate	kon (M-1 s-1)	koff (s-1)	K <sub>D</sub> (pM)	R <sub>MAX</sub> (RU)	tc (RU M <sup>-1</sup> s <sup>-1</sup> )	Chi <sup>2</sup> (RU <sup>2</sup> )	U-value
1	$1.504 \pm 0.002 \times 10^{6}$	$7.151 \pm 0.063 \times 10^{-5}$	47.5	$35.0 \pm 0.01$	$4.63 \pm 12.00 \times 10^{12}$	0.406	5
2	$3.260 \pm 0.013 \times 10^6$	$14.70 \pm 0.04 \times 10^{-5}$	45.1	$28.9 \pm 0.01$	$6.760 \pm 0.094 \times 10^7$	0.111	2
3	$3.350 \pm 0.017 \times 10^6$	$11.80 \pm 0.05 \times 10^{-5}$	35.2	$29.9 \pm 0.01$	$4.830 \pm 0.058 \times 10^{7}$	0.159	2