

**Supplementary Table 1 Comparison of parameters obtained from the global fitting with those obtained from the Im7 mutants that mimic the Im7 folding pathway states**

	Values from global fitting of kinetic data				Values from Im7 mimic mutants		
	Im7 <sub>U</sub>	Im7 <sub>I</sub>	Im7 <sub>N</sub>	Im7-L18AL19AL37A <sup>a</sup>	Im7-L53AL54A <sup>b</sup>	Im7-WT	
K <sub>d</sub> (μM)	4.7 ± 1.1	4.7 ± 0.9	30.6 ± 4.1	10.4 ± 0.2	3.5 ± 0.1	20.5 ± 2.1	
Relative fluorescence unbound <sup>c</sup>	2.10 ± 0.07	3.07 ± 0.12	1 ± 0.01	1.91	2.98	1	
Relative fluorescence bound <sup>c</sup>	2.32 ± 0.08	3.07 ± 0.12	1.17 ± 0.04	2.35	2.98	1.24	

<sup>a</sup>Mimics Im7<sub>U</sub>

<sup>b</sup>Mimics Im7<sub>I</sub>

<sup>c</sup>Normalized to unbound Im7<sub>N</sub> or unbound Im7-WT