

## SUPPLEMENTARY TABLES

**Supplementary Table 1.** Indication of E2<sup>Ubc9</sup>'s important atomic positional fluctuation values calculated for the control simulation (in Å).<sup>a</sup>

	Isolated E2 <sup>Ubc9</sup>	E2 <sup>Ubc9</sup> -E3 <sup>RanBP2</sup> -SUMO-Target <sup>RanGAP1</sup>		E2 <sup>Ubc9</sup> -SUMO-Target <sup>RanGAP1</sup>		
<i>For specific time periods</i>						
		Cluster 1	Cluster 2	Cluster 1	Cluster 2	Cluster 3
E2 <sup>Ubc9</sup> 's loop2	3.7±1.9	3.5±2.2	2.4±1.1	7.5±4.9	11.4±7.9	2.4±1.7

<sup>a</sup> Each entry corresponds to mean ± standard deviation of the atomic positional fluctuation values. The maximum and minimum values of the data set are indicated in parentheses.