

**S4 Table.** P-value statistics testing the hypothesis that simulation metrics have the same distribution as the unmodified control simulations started from the same ZAP-70 crystal structure. Using the medians of each simulation as the data.

<b>Data are medians of each simulation</b>	<b>K377-ubiq</b>	<b>K476-ubiq</b>	<b>K377-acet</b>	<b>K476-acet</b>	<b>K377-Ig domain</b>
<b>Active state F349 C<math>\alpha</math> - D379 C<math>\beta</math> distance</b>	3.787x10 <sup>-8</sup>	0.1616	0.8992		0.1460
<b>Inactive state F349 C<math>\alpha</math> - D379 C<math>\beta</math> distance</b>	0.4192	9.967x10 <sup>-13</sup>		5.277x10 <sup>-4</sup>	
<b>Active state helicity</b>	4.394x10 <sup>-6*</sup>	0.09151*	0.04873*		0.1703*
<b>Inactive state helicity</b>	0.3879*	0.09907*		0.8886*	
<b>Active state N348 C<math>\alpha</math> - W501 C<math>\alpha</math> distance</b>	5.479x10 <sup>-3</sup>	0.6647	0.5616		0.3327
<b>Inactive state N348 C<math>\alpha</math> - W501 C<math>\alpha</math> distance</b>	3.141x10 <sup>-11</sup>	1.902x10 <sup>-5</sup>		0.8614*	

\*indicates p-values that could not be computed exactly with the Wilcoxon test in R because there were duplicate values.