

<b>Mutant</b>	<b>Residues Mutated</b>
<b>1</b>	I205A, N208A, K212A
<b>2</b>	N216A, E219A
<b>3</b>	D222A, S224A
<b>4</b>	K268A, K270A
<b>5</b>	E269A, N271A, K274A
<b>6</b>	E273A, N277A
<b>7</b>	K331A, L334A, K339A
<b>8</b>	R333A, N337A, K341A
<b>9</b>	L357A, S361A
<b>10</b>	N378A, K381A, K382A
<b>11</b>	D388A, N391A, N394A
<b>12</b>	K398A, N403A, D404A, D406A
<b>13</b>	K410A, E412A, K413A
<b>14</b>	E414A, D416A, D417A
<b>15</b>	K553A, K558A, E562A
<b>16</b>	Y555A, K559A, E562A

**Table S3:** Substituted residues listed for each mutant construct in order from N to C terminus