Mutation	Amino Acid Number	<b>Stable</b> <sup>a</sup>
R to A	139	Yes
R to E	139	Yes
Y to F	141	No <sup>b</sup>
R to A	162	Yes
∆CACHE	113 - 297	No
R to A	67	No
R to A	79	No
R to K	139	No
R to S	139	No
D to S	140	No
D to E	140	No
Y to D	141	No
H to A	145	No
F to L	154	No
R to E	162	No
D to G	169	No
R to A	172	No
R to E	172	No
S to A	176	No
G to A	184	No
G to A	188	No
V to A	189	No
R to A	247	No
S to G	253	No
V to M	292	No
S to N	304	No
DY to AA	140 – 141	No
DY to AA	197 – 198	No
DYF to SFF	140 – 142	No
DYF to LDS	197 - 199	No
RDYF to LLDS	139 - 142	No

## Table S1. CACHE Domain Mutations.

<sup>a</sup>As assessed by Western blot.

<sup>b</sup>While we could detect the GcbC protein for the Y141F mutant it was much less stable than the WT.