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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Wild Type** | **Mutant** | **Type** | **Notes** | **Δ fitness score in Caffeine** | **SD** | **Δ fitness score in DTT** | **SD** | **Δ fitness score in HU** | **SD** |
| Lys11 | Asparagine | Positive to polar | Lys11 linked poly-Ub | 0.55 | 0.04 | -0.32 | 0.03 | -0.03 | 0.03 |
| Thr14 | Valine | Polar to hydrophobic | Surface exposed beta strand, adjacent to Phe4 | 0.16 | 0.0 | -0.01 | 0.17 | -0.33 | 0.03 |
| Ser20 | Tyrosine | Polar to aromatic | Surface exposed loop | 0.5 | 0.07 | -0.33 | 0.02 | -0.01 | 0.09 |
| Asp21 | Phenylalanine | Negative to aromatic | Surface exposed loop | 0.11 | 0.35 | -0.41 | 0.16 | -0.01 | 0.19 |
| Thr22 | Histidine | Polar to positive | Putative helix cap | 0.51 | No Estimate | -0.45 | No Estimate | -0.15 | No Estimate |
| Gln40 | Asparagine | Shortened by one carbon | Surface exposed loop | 0.20 | 0.27 | -0.49 | 0.17 | -0.09 | 0.06 |
| Leu56 | Methionine | Extension of hydrophobic group | Core residue | 0.57 | 0.03 | -0.48 | 0.0 | -0.19 | 0.0 |
| His68 | Tyrosine | Positive to aromatic | Surface exposed beta strand | 0.17 | 0.09 | -0.30 | 0.17 | -0.28 | 0.11 |