## Figure S1



Figure S1. Probability of misfolding ( P (misfold)) of the mutated sequences is plotted against $n H_{\text {core }}$ for protein 2PM1.

## Figure S2



Figure S2. Probability of misfolding ( P (misfold)) of the mutated sequences is plotted against $n H_{\text {surf }}$ for protein 2PM1.

## Figure S3



Figure S3. Probability of destabilizing mutations (P(dmut)) is plotted against the corresponding mutated site for protein 2PM1.

The core sites are $2,4,5,8,9,13,14,15,18,19,26,27,28,29,30$
The surface sites are $1,3,6,7,10,11,12,16,17,20,21,22,23,24,25$
sites 2 (core), 13(core), 22(surface), 27 (core) have the most destabilizing effect upon mutation.

8 out of 15 surface sites $(3,11,12,16,17,20,23,24)$ have minimal destabilizing effect upon mutaion.

2 out of 15 core sites $(8,19)$ have minimal destabilizing effect upon mutation.

## Figure S4



Figure S4. Number of clashing mutation is plotted against the number of matching mutation for folded and misfolded sequences.

