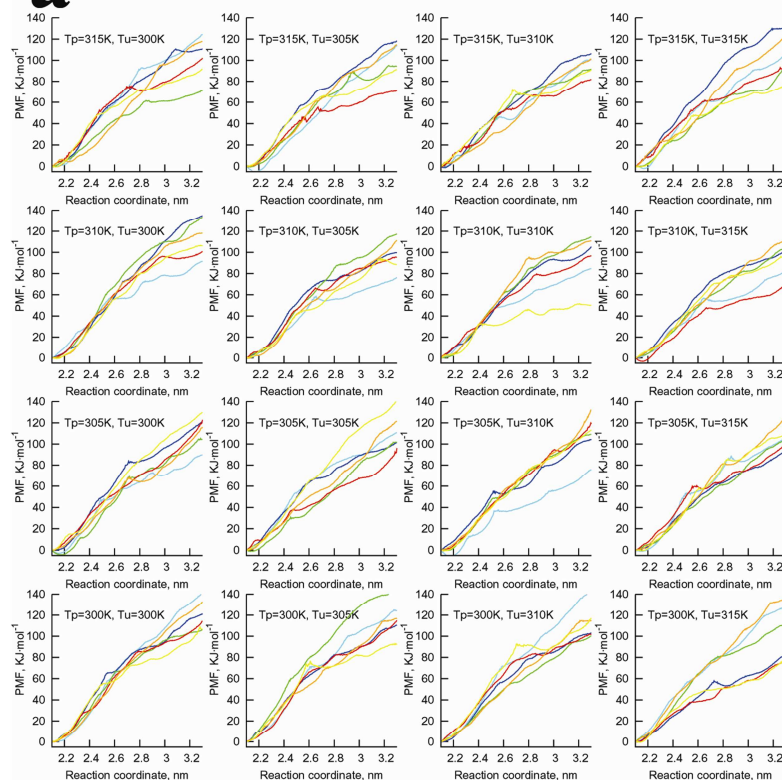
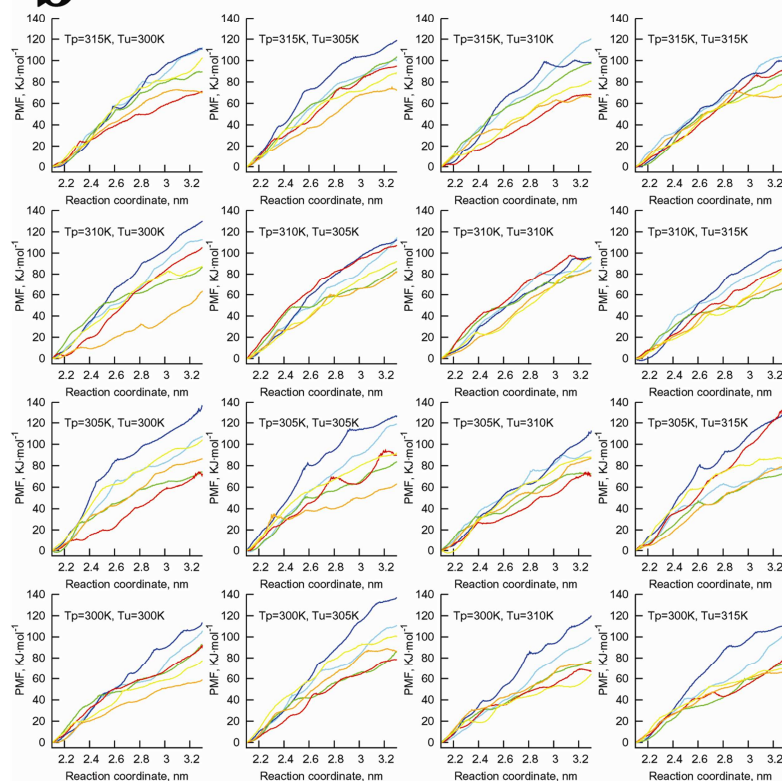


Supplementary.

**a****b**

**FigS1. Collection of individual PMFs along the reaction coordinate of s3 loops unfolding for D-model (blue), C-model (cyan), N-model (green), V-model (red), A-model (orange) and G-model (yellow). The pulling is performed under slightly different temperatures  $T_p=300K, 305K, 310K$  and  $315K$ . Each of pulling trajectories was sampled under slightly different temperatures  $T_u=300K, 305K, 310K$  and  $315K$ .  
a, PFM of s3/1 loops melting. b, PMF of s3/2 loops melting.**