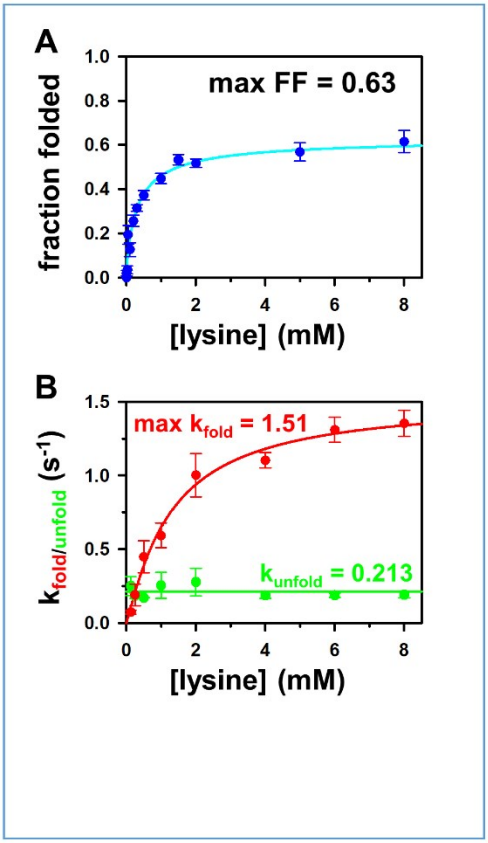
Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supporting Information

Figure 1. Lysine dependent folding at the ambient pressure obtained from smFRET (A) diffusing and (B) surface tether experiments. Data of fraction folded and k_{fold} are fit to the Hill equation with floating Hill coefficients n = 0.93(16) and 1.12(17), respectively, consistent with the expected ligand binding stoichiometry from crystal structure data. In smFRET diffusing experiments, the max folded fraction is observed as 0.63(6) at saturating [lysine]. In surface tether experiments where the lysine-dependent folding and unfolding rates can be obtained by prolonged observation of the fluorescence signals from a single construct at a time, the k_{unfold} is found independent of [lysine] as 0.213(14) s^{-1} and the k_{fold} is determined as 1.51(13) s^{-1} at saturating [lysine], leading to the steady state folded fraction as 0.88(9). The difference in fraction folded (29(8) %) between the diffusing and surface tether measurements is made up by the subpopulaion of constructs that are incapable of folding (28(4) %) from the previous raster scanned image.

Figure S1


A
fraction folded
max FF = 0.63
[lysine] (mM)
B
$k_{fold/unfold}$ (s^{-1})
max k_{fold} = 1.51
k_{unfold} = 0.213
[lysine] (mM)