

changes in  
allosteric behavior

changes in  
expression

changes in DNA affinity

$$\Delta F = k_B T \left[ -\log \frac{p_{\text{active}}^{(\text{mut})}(c)}{p_{\text{active}}^{(\text{wt})}(c)} - \log \frac{R^{(\text{mut})}}{R^{(\text{wt})}} + \frac{\Delta \varepsilon_{RA}^{(\text{mut})} - \Delta \varepsilon_{RA}^{(\text{wt})}}{k_B T} \right]$$