S8_Fig

S8_Fig. Increased binding of O$_2$ with HIF hydroxylases reduces the effect of HIF stabilization in both normoxia and hypoxia. Here we selectively increase the forward binding rate of O$_2$ with hydroxylase 5 fold; in response to this, (A) in hypoxia (2% oxygen), steady state total compound formation of O$_2$ with hydroxylases increases, which (B) speeds up the instantaneous hydroxylation of HIF-1α during the simulation compared to the control case (blue curve). The hydroxylation rate indicated by green asterisks (increased FIH binding) does not differ significantly from the rate indicated by red diamonds (increased PHD2 binding), but these two cases have different HIF-1α initial conditions so the relative fold changes computed are not identical.