

Case	F_{reg}	Null Mutants Fold Change	Epistatic Relation	Epistasis Coefficient
Activator recruited by Helper	$\frac{1 + a^{\frac{1+he^{-\epsilon_{ah}}}{1+h}}e^{-\epsilon_{ap}}}{1 + a^{\frac{1+he^{-\epsilon_{ah}}}{1+h}}}$	< 1	$F_{reg}(0, h) = F_{reg}(0, 0)$	$-\frac{1}{2} \leq s \leq 0$
Repressor recruited by helper	$\left(1 + \frac{1 + he^{-\epsilon_{hr}}}{1 + h}r\right)^{-1}$	> 1	$F_{reg}(0, h) = F_{reg}(0, 0)$	$-\frac{1}{2} \leq s \leq 0$
Dual repressors interacting	$\left(1 + r_1 + r_2 + r_1r_2e^{-\epsilon_{r_1r_2}}\right)^{-1}$	> 1		$-\frac{1}{2} \leq s \leq 0$
Dual activators interacting	$\frac{1 + a_1e^{-\epsilon_{a_1p}} + a_2e^{-\epsilon_{a_2p}} + a_1a_2e^{-\epsilon_{a_1p}-\epsilon_{a_2p}-\epsilon_{a_1a_2}}}{1 + a_1 + a_2 + a_1a_2e^{-\epsilon_{a_1p}-\epsilon_{a_2p}}}$	< 1		$-\frac{1}{2} \leq s \leq \infty$
Activator removed by Inhibitor, Inhibitor in excess	$\frac{1 + a^{\frac{1+ie^{-\epsilon_{ai}}}{1+i}}e^{-\epsilon_{ap}}}{1 + a^{\frac{1+ie^{-\epsilon_{ai}}}{1+i}}}$	$A = 0, \sim 1;$ $I = 0, > 1$	$F_{reg}(0, i) = F_{reg}(0, 0)$	$s < -\frac{1}{2}$
Activator removed by Inhibitor, Activator in excess	$\frac{1 + a^{\frac{1+ie^{-\epsilon_{ai}}}{1+i}}e^{-\epsilon_{ap}}}{1 + a^{\frac{1+ie^{-\epsilon_{ai}}}{1+i}}}$	$A = 0, < 1;$ $I = 0, > 1$	$F_{reg}(0, i) = F_{reg}(0, 0)$	$0 \leq s$