



## PosRegLuxR

Positive regulation of LuxR, increased LuxR degradation rate $\beta_6$		
DAHL	diffusion rate of AHL across the cellular membrane	1.65
k-1	RA dissociation rate	7.52
k1	RA formation rate	3.45
k2	formation & maturation rate of the full fluorescent protein	2.12
k3	aiiA activity	0.00
Km1	Michaelis-Menten constant of pLuxA for RA	0.38
Km2	Michaelis-Menten constant of pLuxB for RA	6.60
$\alpha_1$	AHL production rate of LuxI	4.28
$\alpha_{10}$	Leaky production rate of Lysis from pLuxB	0.00
$\alpha_{11}$	Maximum production rate of Lysis from pLuxB	0.37
$\alpha_{12}$	Constitutive production of split FP	5.23
$\alpha_{13}$	aiiA expression	0.00
$\alpha_2$	Leaky production rate of LuxI from pConst	0.00
$\alpha_3$	Maximum production rate of LuxI from pConst	3.02
$\alpha_4$	Leaky production rate of LuxI from pLuxA	0.00
$\alpha_5$	Maximum production rate of LuxI from pLuxA	1.11
$\alpha_6$	Leaky production rate of LuxR from pConst	0.08
$\alpha_7$	Maximum production rate of LuxR from pConst	1.02
$\alpha_8$	Leaky production rate of LuxR from pLuxA	0.00
$\alpha_9$	Maximum production rate of LuxR from pLuxA	1.94
$\beta_1$	degradation rate of cellular AHL	4.89
$\beta_2$	degradation rate of external AHL	0.12
$\beta_3$	degradation rate of RA	0.14
$\beta_4$	degradation rate of RA2	2.49
$\beta_5$	LuxI degradation rate	3.68
$\beta_6$	LuxR degradation rate	1.71
$\beta_7$	Lysis degradation	0.10
$\beta_8$	Split FP degradation	0.09
$\beta_9$	aiiA degradation	0.00

