



NegRegaiiA

Negative regulation of LuxR, added aiiA		
$\alpha 1$	AHL production rate of LuxI	0.13
DAHL	diffusion rate of AHL across the cellular membrane	0.41
k1	RA formation rate	2.04
k-1	RA dissociation rate	4.84
$\beta 1$	degradation rate of cellular AHL	0.51
$\beta 2$	degradation rate of external AHL	0.10
$\beta 4$	degradation rate of RA2	0.04
$\beta 3$	degradation rate of RA	0.23
$\alpha 2$	Leaky production rate of LuxI from pConst	0.00
$\alpha 3$	Maximum production rate of LuxI from pConst	0.00
Km1	Michaelis-Menten constant of pLuxA for RA	0.43
$\alpha 5$	Maximum production rate of LuxI from pLuxA	0.46
$\alpha 4$	Leaky production rate of LuxI from pLuxA	0.00
$\beta 5$	LuxI degradation rate	2.14
$\alpha 6$	Leaky production rate of LuxR from pConst	0.01
$\alpha 7$	Maximum production rate of LuxR from pConst	0.03
$\alpha 9$	Maximum production rate of LuxR from pLuxA	2.16
$\alpha 8$	Leaky production rate of LuxR from pLuxA	0.00
$\beta 6$	LuxR degradation rate	0.68
$\alpha 10$	Leaky production rate of Lysis from pLuxB	0.00
$\alpha 11$	Maximum production rate of Lysis from pLuxB	0.40
Km2	Michaelis-Menten constant of pLuxB for RA	1.07
$\beta 7$	Lysis degradation	0.10
k2	formation & maturation rate of the full fluorescent protein	2.00
$\alpha 12$	Constitutive production of split FP	5.00
$\beta 8$	Split FP degradation	0.20
$\alpha 13$	aiiA expression	0.25
$\beta 9$	aiiA degradation	5.00
k3	aiiA activity	8.00

