



PosRegaiiA

Positive regulation of LuxR, added aiiA		
$\alpha 1$	AHL production rate of LuxI	4.28
DAHL	diffusion rate of AHL across the cellular membrane	1.65
k1	RA formation rate	3.45
k-1	RA dissociation rate	7.52
$\beta 1$	degradation rate of cellular AHL	4.89
$\beta 2$	degradation rate of external AHL	0.12
$\beta 4$	degradation rate of RA2	2.49
$\beta 3$	degradation rate of RA	0.14
$\alpha 2$	Leaky production rate of LuxI from pConst	0.00
$\alpha 3$	Maximum production rate of LuxI from pConst	3.02
Km1	Michaelis-Menten constant of pLuxA for RA	0.38
$\alpha 5$	Maximum production rate of LuxI from pLuxA	1.11
$\alpha 4$	Leaky production rate of LuxI from pLuxA	0.00
$\beta 5$	LuxI degradation rate	3.68
$\alpha 6$	Leaky production rate of LuxR from pConst	0.08
$\alpha 7$	Maximum production rate of LuxR from pConst	1.02
$\alpha 9$	Maximum production rate of LuxR from pLuxA	1.94
$\alpha 8$	Leaky production rate of LuxR from pLuxA	0.00
$\beta 6$	LuxR degradation rate	1.81
$\alpha 10$	Leaky production rate of Lysis from pLuxB	0.00
$\alpha 11$	Maximum production rate of Lysis from pLuxB	0.37
Km2	Michaelis-Menten constant of pLuxB for RA	6.60
$\beta 7$	Lysis degradation	0.10
k2	formation & maturation rate of the full fluorescent protein	2.12
$\alpha 12$	Constitutive production of split FP	5.23
$\beta 8$	Split FP degradation	0.09
$\alpha 13$	aiiA expression	1.00
$\beta 9$	aiiA degradation	4.00
k3	aiiA activity	8.00

