

Parameter set with induced full lysis, positive LuxR regulation

DAHL	diffusion rate of AHL across the cellular membrane	9.10
k-1	RA dissociation rate	2.31
k1	RA formation rate	9.54
k2	formation & maturation rate of the full fluorescent protein	7.94
k3	aiiA activity	0.92
Km1	Michaelis-Menten constant of pLuxA for RA	0.26
Km2	Michaelis-Menten constant of pLuxB for RA	0.00
α 1	AHL production rate of LuxI	0.63
α 10	Leaky production rate of Lysis from pLuxB	0.00
α 11	Maximum production rate of Lysis from pLuxB	7.58
α 12	Constitutive production of split FP	9.52
α 13	aiiA expression	4.72
α 2	Leaky production rate of LuxI from pConst	0.00
α 3	Maximum production rate of LuxI from pConst	7.59
α 4	Leaky production rate of LuxI from pLuxA	0.09
α 5	Maximum production rate of LuxI from pLuxA	3.28
α 6	Leaky production rate of LuxR from pConst	6.53
α 7	Maximum production rate of LuxR from pConst	0.00
α 8	Leaky production rate of LuxR from pLuxA	5.17
α 9	Maximum production rate of LuxR from pLuxA	0.00
β 1	degradation rate of cellular AHL	0.39
β 2	degradation rate of external AHL	9.38
β 3	degradation rate of RA	0.10
β 4	degradation rate of RA2	2.04
β 5	LuxI degradation rate	5.46
β 6	LuxR degradation rate	0.08
β 7	Lysis degradation	9.10
β 8	Split FP degradation	2.31
β 9	aiiA degradation	9.54
DAHLext	External AHL diffusion rate	1000.00
DGFP	External GFP diffusion rate	100.00

