

Parameter	Default value	Description
$k_1$	$6.89 \text{ nMh}^{-1}$	Maximal rate of Per/Cry transcription
$k_2$	$0.90 \text{ nM}$	Michaelis constant of Per/Cry transcription
$k_3$	$0.50 \text{ nM}$	Inhibition constant of Per/Cry transcription
$k_4$	$0.126 \text{ h}^{-1}$	Degradation rate of Per/Cry mRNA
$k_5$	$0.257 \text{ nMh}^{-2}$	Synthesis rate of PER/CRY protein
$k_6$	$0.076 \text{ h}^{-1}$	Degradation rate of cytoplasmatic PER/CRY
$k_7$	$0.248 \text{ h}^{-1}$	Nuclear import rate of the PER/CRY complex
$k_8$	$0.014 \text{ h}^{-1}$	Nuclear export rate of the PER/CRY complex
$k_9$	$0.135 \text{ h}^{-1}$	Degradation rate of the nuclear PER/CRY complex
$k_{10}$	$1.24 \text{ nMh}^{-1}$	Maximal rate of Bmal1 transcription
$k_{11}$	$1.94 \text{ nM}$	Michaelis constant of Bmal1 transcription
$k_{12}$	$0.12 \text{ h}^{-1}$	Degradation rate of Bmal1 mRNA
$k_{13}$	$0.186 \text{ h}^{-1}$	Synthesis rate of BMAL1 protein
$k_{14}$	$1.94 \text{ h}^{-1}$	Degradation rate of cytoplasmatic BMAL1
$k_{15}$	$0.345 \text{ h}^{-1}$	Nuclear import rate of BMAL1
$k_{16}$	$0.046 \text{ h}^{-1}$	Nuclear export rate of BMAL1
$k_{17}$	$0.124 \text{ h}^{-1}$	Degradation rate of nuclear BMAL1
$k_{18}$	$0.069 \text{ h}^{-1}$	Activation rate of nuclear BMAL1
$k_{19}$	$0.0023 \text{ h}^{-1}$	Deactivation rate of nuclear BMAL1*
$k_{20}$	$0.088 \text{ h}^{-1}$	Degradation rate of nuclear BMAL1*
$k_{21}$	$0.076 \text{ h}^{-1}$	Production rate of the neurotransmitter
$k_{22}$	$2.84 \text{ h}^{-1}$	Degradation rate of the neurotransmitter
$k_{23}$	$13.5 \text{ nM}$	Total concentration of PKA
$k_{24}$	$5.4 \text{ h}^{-1}$	Activation rate of PKA
$k_{25}$	$7.2 \text{ h}^{-1}$	Deactivation rate of PKA
$k_{26}$	$13.5 \text{ nM}$	Total concentration of CREB
$k_{27}$	$0.27 \text{ h}^{-1}$	Activation rate of CREB
$k_{28}$	$9.00 \text{ h}^{-1}$	Deactivation rate of CREB

