

Name	Description	Value	Unit	Fit range
k_{ilr}	ILR turnover	1.9e-5	s ⁻¹	[9.3e-6, 2.8e-5]
k_a	ILR complex formation	6.5	μM ⁻¹ s ⁻¹	-
k_i	ILR complex internalisation	0.0032	s ⁻¹	-
k_p	IKK phosphorylation	0.095	s ⁻¹	[0, 0.095]
k_{dp}	IKK dephosphorylation	7.1e-4	s ⁻¹	-
K_m	Michaelis constant for IKK dephosphorylation	0.014	-	-
k_{uv}	UV-induced PP2A deactivation	3.6e-4	s ⁻¹	-
a_1	IκBα-NFκB association	1	μM ⁻¹ s ⁻¹	[0.3, 1]
a_2	degradation of free IκBα	0.015	s ⁻¹	[0, 0.8]
a_3	degradation of NF-κB- bound IκBα	0.014	s ⁻¹	[0, 0.8]
c_{1a}	IκBα mRNA transcription	9.2e-7	s ⁻¹	[0, 9.2e-7]
c_{3a}	IκBα mRNA degradation	6.0e-4	s ⁻¹	[2.6e-4, 7.7e-4]
c_{4a}	IκBα translation	0.5	s ⁻¹	[0, 0.5]
c_{5a}	IKK-independent degradation of free IκBα	7.5e-4	s ⁻¹	[5.8e-4, 2e-3]
i_{1a}	IκBα nuclear import	6.7e-4	s ⁻¹	[1.9e-4, 6.7e-4]
e_{1a}	IκBα nuclear export	3.4e-4	s ⁻¹	calculated as $i_{1a}/2$
$uvinh$	UVB-induced translational inhibition	0.92	-	[0, 1]
c_{6a}	constitutive IκBα degra- dation in IκBα-NF-κB complex	2.2e-5	s ⁻¹	fix
k_{pconst}	constitutive IKKβ phosphorylation	2.1e-6	s ⁻¹	-
k_v	volume ratio cytoplasm / nucleus	2.9	-	fix
$nfkb_{tot}$	concentration of NF-κB if completely in the cytoplasm	0.067	μM	fix
$volume$	total cell volume	2	pl	fix
s_{IKK}	IKK scaling factor	0.98	-	-
$s_{IκBα}$	IκBα scaling factor	14.6	-	-
$s_{NFκB1}$	NF-κB scaling factor (IL-1 stimulation)	8.5	-	-
$s_{NFκB2}$	NF-κB scaling factor (IL-1+UVB stimulation)	8.1	-	-