

Single TNF α trimers NF- κ B activation: Stochastic robustness of NF- κ B signaling.

Program description

Program to the simulate NF- κ B signaling pathway consist of five files:

NFsimulation – main program

NFmodel – our model of the NF- κ B signaling pathway

NFparameters – set of parameters for model

Statuschange – changes the value of the discrete variables

AverageCellPlotting – plot the results

In the NFsimulation file you can change simulation protocols in the section “Simulation time points”, Number of IKB α and A20 alleles (ANa and AN), number of cells considered in the population (N) and also TNF dose (TNF). You can also change remaining parameters in the file NFparameters.

In the supplementary package ProgramsSupp you can also find 10 files titled FigureX which are programs corresponding to “NFsimulation” especially prepared to obtain corresponding figures from our paper. In this files you can notice special section named “Specific simulation parameters”. In this section we define parameters which are used in this particular numerical simulation in addition to parameters defined according to Table 1 of Supplement 2.