





maintenance_fun constant

keep_ribosome_kcat FALSE keep_transport_kcat FALSE

	tC	ATPS	EAA	ENT	RNAp	DNAp	r
С	1	-1	-1	-0.45	Ō	Ō	0
AA	0	0	1	-0.45	0	0	-0.8
NT	0	0	0	1	–1	-1	0
ATP	0	0.5	0	-0.1	0	0	-0.2
RNA	0	0	0	0	1	0	0
DNA	0	0	0	0	0	1	0
р	0	0	0	0	0	0	1

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tC	ATPS	EAA	ENT	RNAp	DNAp	r
0.1	0	0	0	Ō	0	0
0	0	0	0	0	0	0
0	11	11	11	0	0	0
0	0	0	2	0	0	2
0	0	0	0	1	1	0
0	0	0	2	0	0	2
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
		0.1 0 0	0.1 0 0 0 0 0	0.1 0 0 0 0 0 0 0 0 11 11 11	0.1 0 0 0 0 0 0 0 0 11 11 11 0 0 0	0.1 0 0 0 0 0 0 0 0 0 0 11 11 11 0 0

KA

	tC	ATPS	EAA	ENT	RNAp	DNAp	r
x_C	0	0	0	0	Ō	Ō	0
x_W	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0
RNA	0	0	0	0	0	0	25
DNA	0	0	0	0	4	4	0
р	0	0	0	0	0	0	0

kcat

		[,2]					
kcatf	34	12	6	39	6	8	4
kcatb	0	0	0	0	0	0	0

Keq

minimal phi constraint

minimal f constraint