







maintenance\_fun constant

keep\_ribosome\_kcat FALSE keep\_transport\_kcat FALSE

	tC	tC2	ATPS	ATPS2	EAA	ENT	RNAp	DNAp	r
С	1	0	-1	0	0	0	0	0	0
C2	0	1	0	<b>–1</b>	0	0	0	0	0
	0	0	0.7	0.7	-1	-0.45	0	0	0
AA	0	0	0	0	1	-0.45	0	0	-0.8
NT	0	0	0	0	0	1	-1	<b>–1</b>	0
ATP	0	0	0.3	0.3	0	-0.1	0	0	-0.2
RNA	0	0	0	0	0	0	1	0	0
DNA	0	0	0	0	0	0	0	1	0
р	0	0	0	0	0	0	0	0	1

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	tC	tC2	ATPS	ATPS2	EAA	ENT	RNAp	DNAp	r
x_C	0.1	0	0	0	0	0	0	0	0
x_C2	0	1	0	0	0	0	0	0	0
С	0	0	6	0	0	0	0	0	0
C2	0	0	0	6	0	0	0	0	0
I	0	0	0	0	1	1	0	0	0
AA	0	0	0	0	0	1	0	0	1
NT	0	0	0	0	0	0	1	1	0
ATP	0	0	0	0	0	14	0	0	14
RNA	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	0
р	0	0	0	0	0	0	0	0	0

KA

	tC	tC2	<b>ATPS</b>	ATPS2	EAA	ENT	RNAp	DNAp	r
x_C	0	0	0	0	0	0	Ō	Ō	0
x_C2	0	0	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0	0	0
C2	0	0	0	0	0	0	0	0	0
I	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0	0	0
RNA	0	0	0	0	0	0	0	0	25
DNA	0	0	0	0	0	0	4	4	0
р	0	0	0	0	0	0	0	0	0

## kcat

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]
kcatf	35.2	20	43	80	6.6	43	6.6	8.7	4.4
kcatb	0	0	0	0	0	0	0	0	0

## Keq



## minimal phi constraint

[1,]

## minimal f constraint

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]
[1,]	Ō	Ō	Ō	Ō	Ō	Ō	Ō	<b>[8,]</b> 0	Ō