









maintenance_fun constant

keep_ribosome_kcat FALSE keep_transport_kcat FALSE

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
С	1	-0.15	-0.1	0	0	0	0	0	Ō	0	0	0	0	0	0	0	0
1	0	0.075	0.075	0	-1	-0.17	-0.18	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	1	-0.17	0	0	0	0	0	0	0	0	0	-0.006	0
NT	0	0	0	-1	0	0.34	0	0	-1	-1	-1	1	1	1	-1	0	0
ADP	0	-0.85	-0.9	1	0	0.66	0.82	1	0	0	0	0	0	0	0	0.026	0.026
ATP	0	0.85	0.9	0	0	-0.66	-0.82	-1	0	0	0	0	0	0	0	-0.026	-0.026
LIP	0	0	0	0	0	0	0.18	0	0	0	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	1	0	0	-1	0	0	0	0	0
mRNA	0	0	0	0	0	0	0	0	0	1	0	0	-1	0	0	0	0
tRNA	0	0	0	0	0	0	0	0	0	0	1	0	0	-1	0	-0.968	0.968
DNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.974	-0.974
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.006

x_C 0.05 0 <th></th> <th>tC</th> <th>FERM</th> <th>RESP</th> <th>ADPS</th> <th>EAA</th> <th>ENT</th> <th>LIPS</th> <th>Maint</th> <th>rRNAp</th> <th>mRNAp</th> <th>tRNAp</th> <th>rRNase</th> <th>mRNase</th> <th>tRNAse</th> <th>DNAp</th> <th>tRNAc</th> <th>r</th>		tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
C 0 11 2.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	x_C	0.05	0	0	0	0	0	0	0	Ö	Ö	Ö	0	0	0	Ö	0	0
NT 0 0 0 2 0 0 0 0 2 2 0 0 0 0 0 2 2 2 0	x_W	0	20	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NT 0 0 0 2 0 0 0 0 2 2 0 0 0 0 0 2 2 2 0	С	0	11	2.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NT 0 0 0 2 0 0 0 0 2 2 0 0 0 0 0 2 2 2 0	ı	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0
ADP 0 1 0.2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AA	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0
ATP 0 0 0 0 2 2 2 2 0		0	0	0	2	0	0	0	0	2	2	2	0	0	0	2	0	0
LIP 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rRNA 0 0 0 0 0 0 0 0 19 0 0 0 0 0 mRNA 0<		0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	2	2
mRNA 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
tRNA		0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0
DNA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	mRNA	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
DNA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
TC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
p 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
x_C	0	0	0	0	0	0	0	0.01	Ö	Ö	Ö	0	0	0	Ö	0	0
x_W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ı	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
mRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
tRNA DNA TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	4	4	4	0	0	0	4	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

kcat

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
kcatf	98.9	2547.2	509.5	23.5	18	253.4	104.2	73.9	16.3	1	16.3	18	18	18	27.1	30852.7	1873.4
kcatb	10	255	51	2	2	25	10	7	2	0	2	2	2	2	3	3085	187

Keq



phi input

[,8] 0.3036 **[,9]** 0.0426 **[,10]** 0.0213 **[,11]** 0.0071 **[,12]** 0.002 **[,13]** 0.006 **[,17]** 0.284

[,5] 0.165

[,3] 0.023

[,1] 0.043

[1,]

[,6] 0.021 **[,7]** 0.031

average saturation input

minimal phi constraint

,		u	an	•	L	

[1,]

minimal f constraint

[,8] [,9] [,10] [,11] [,12] [,13] [,14] [,15] [,16] 5.15121841070434 0 0 0 0 0 0 0

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[1,] [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,1]