







	tC	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
С	1	-0.02	0	-1	-0.167	-0.18	0	0	Ō	0	0	0	0	Ō	0	0
AA	0	0	0	1	-0.167	0	0	0	0	0	0	0	0	0	-0.01	0
NT	0	0	-1	0	0.334	0	0	-1	-1	-1	1	1	1	-1	0	0
ADP	0	-0.98	1	0	0.666	0.82	1	0	0	0	0	0	0	0	0.05	0.05
ATP	0	0.98	0	0	-0.666	-0.82	-1	0	0	0	0	0	0	0	-0.05	-0.05
LIP	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	1	0	0	-1	0	0	0	0	0
mRNA	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	1	0	0	-1	0	-0.94	0.94
DNA	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	0.95	-0.95
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01

	tC	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
x_C	0.1	0	0	0	0	0	0	Ō	Ō	Ō	0	0	0	Ō	0	0
x_W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
С	0	6	0	3	5	5	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	8	0	0	0	0	0	0	0	0	0	3	0
NT	0	0	3	0	0	0	0	3	3	3	0	0	0	3	0	0
ADP	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	5	3	3	0	0	0	0	0	0	0	3	3
LIP	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	10	0	0	0	0	0
mRNA	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
tRNA	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
DNA	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	3
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	tC	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
x_C	0	0	0	0	0	0	0.01	Ō	0	0	0	0	0	0	0	0
x_W	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
AA	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
ADP	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
LIP	30	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	70
mRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
tRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	5	5	5	0	0	0	5	0	0
TC	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

kcat

	F.43	r 01	r 01	F 43			1	. 01	. 01	F 401	F 4 4 1	F 401	F 401	F 4 41	F 451	F 401
kcatf	[,1] 100	[,2] 1200	[,3] 11	[, 4] 10	[,5] 60	[,6] 58	[,/] 77	[, 8] 12	[,9] o	[,10] 12	[,11] 10	[,12] 10	[,13] 10	[,14] 15	[,15] 10000	[,16] 700
kcatb		0	0	0	0	0	0	0	Ö	0	0	0	0	0		0

Keq

[1,]	[,1] Inf	[,2] Inf	[,3] Inf	[,4] Inf	[,5] Inf	[,6] Inf	[,7] Inf	[,8] Inf	[,9] Inf	[,10] Inf	[,11] Inf	[,12] Inf	[,13] Inf	[,14] Inf	[,15] Inf	[,16] Inf

minimal phi constraint

[,8] [,9] 0

[,10] 0 **[,11]** 0.002 **[,12]** 0.006 **[,13]** 4e-04 **[,14]** 0 **[,15]** 0 **[,16]** 0

[,**5]** [,**6]** 0

[,4] 0

[,1] [,2] [,3] 0 0 0

[1,]

[,7] 0

minimal f constraint

, 1		

[1,]

[,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11] [,12] [,13] [,14] [,15] [,16] 0 0 0 0 0 0 0 0 0 0 0 0 0 0