







	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
С	1	0	-0.2	0	-1	-0.167	-0.18	0	0	0	0	0	0	0	Ō	0	0
AA	0	0	0	0	1	-0.167	0	0	0	0	0	0	0	0	0	-0.01	0
NT	0	0	0	-1	0	0.334	0	0	-1	-1	-1	1	1	1	-1	0	0
ADP	0	0	-0.8	1	0	0.666	0.82	1	0	0	0	0	0	0	0	0.05	0.05
ATP	0	0	0.8	0	0	-0.666	-0.82	-1	0	0	0	0	0	0	0	-0.05	-0.05
W	0	-1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	-0.94	0.94
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	0.95	-0.95
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01

	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
x_C	0.5	0	0	0	0	0	0	0	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	5	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
NT	0	0	0	1	0	0	0	0	2	2	2	0	0	0	2	0	0
ADP ATP	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2	2
W	0	2	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	11	0	0	0	0	0
mRNA	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
tRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
DNA TC	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	2	1
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	rRNase	mRNase	tRNAse	DNAp	tRNAc	r
x_C	0	0	0	0	0	0	0	0.2	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
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
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIP	50	50	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	70
mRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
tRNA DNA	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	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	0
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## kcat

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[.8]	[.9]	[,10]	[,11]	[,12]	[,13]	[,14]	[,15]	[,16]	[,17]
kcatf	100	120	968	4	9	160	53	3	4	- ī	1	<b>[,12]</b> 10	10	10	42	10306	626
kcatb	10	12	97	1	1	16	5	0	0	0	0	0	0	0	0	0	0

## Keq

[1,]	[,1] 100	[ <b>,2]</b> 5	<b>[,3]</b> 9.97938144329897	[ <b>,4</b> ] 8	[ <b>,5]</b> 9	<b>[,6]</b> 10	<b>[,7]</b> 10.6	[ <b>,8]</b> Inf	<b>[,9]</b> Inf	<b>[,10]</b> Inf	<b>[,11]</b> Inf	[,12] Inf	[,13] Inf	<b>[,14]</b> Inf	<b>[,15]</b> Inf	<b>[,16]</b> Inf	[,17] Inf

## minimal f constraint

[,1] [,2] [,3] [,4] [,5] [,6] [,7] 0 0 0 0 0 0

[,8] [,9] [,10] [,11] [,12] [,13] [,14] [,15] [,16] [,17] 0.35 0 0 0 0 0 0 0 0 0