

Additional file 2

The variance analysis of the regression models. Multiple linear regression models^a linking the log-values of kinetic constants and the amino acid composition of the yeast *Saccharomyces cerevisiae* enzyme sequences

Model	Variables		Variance source	Sum of squares	Df	Mean square	F-ratio	<i>p</i> -value
	dependent	independent						
I	log(k_{cat})	M, W, R, L	model	18.3210	4	4.58024	64.86	0.0000
			<i>residual</i>	0.8473	12	0.07061		
			total	19.1683	16			
II	log(k_{cat})	T, V, H, A, K	model	18.2526	5	3.65052	43.85	0.0000
			<i>residual</i>	0.9157	11	0.08325		
			total	19.1683	16			
III	log(k_{cat})	A, H, V, E	model	17.1176	4	4.27939	24.50	0.0000
			<i>residual</i>	2.0507	12	0.17090		
			total	19.1683	16			
IV	log(K_M)	D, N, W, L, A	model	6.1371	5	1.22741	82.97	0.0000
			<i>residual</i>	0.1331	9	0.01479		
			total	6.2702	14			
V	log(k_{cat}/K_M)	A, H, R, G, Q, N	model	21.9479	6	3.65800	65.91	0.0000
			<i>residual</i>	0.4995	9	0.05550		
			total	22.4474	15			
VI	log(k_{cat}/K_M)	L, T, N, W, Q, F	model	21.9286	6	3.65480	63.40	0.0000
			<i>residual</i>	0.5188	9	0.05764		
			total	22.4474	15			
VII	log(k_{cat}/K_M)	T, Q, C, N, A	model	21.7742	5	4.35480	64.69	0.0000
			<i>residual</i>	0.6732	10	0.06732		
			total	22.4474	15			

a Model elements together with the statistical indices are represented in Table 1