

Additional file 5

The linkage of kinetic constants and amino acid composition for glycolytic enzymes employed in the Teusink's model.

Relationship between the amino acid composition and K_M values for 10 enzymes (HXK, GPI, ALD, GAPDH, GlycPDH, PGK, PGM, ENOL, PK, PDC) employed in the Teusink's model [26] for yeast glycolysis. The plot of actual K_M values (A) versus those predicted by the linear regression equation: $\log(K_M) = 5.1877 - 0.84811 * K - 0.73666 * C + 0.46523 * Y - 0.40875 * M + 0.13872 * P$ ($R^2_{adj.} = 98.87\%$, $p = 0.0000$). Relationship between an increase in the percentage of explained variance and the number of independent variables (amino acid frequencies of occurrence) included in multiple regressions (B), where: 1 – K, 2 – K, Y, 3 – K, Y, C, 4 – K, Y, C, M, and 5 – K, Y, C, M, I.

