

Table 3. Concentration of several proposed regulatory metabolites of the Pasteur effect in aerobiosis and anaerobiosis in yeast showing and lacking this effect

Experimental conditions and symbols are as described in the legend of Table 2

Metabolite	Concentration in conditions							
	A		B		C		D	
	O ₂	N ₂	O ₂	N ₂	O ₂	N ₂	O ₂	N ₂
	μM							
Fructose-2,6-P ₂	1.2 ± 0.2	1.3 ± 0.1	0.36 ± 0.01	1.1 ± 0.1	0.56 ± 0.05	0.51 ± 0.02	1.7 ± 0.2	1.7 ± 0.3
	mM							
Phosphate	22 ± 1	22 ± 1	19 ± 1	25 ± 1	17 ± 3	23 ± 4	15 ± 4	23 ± 2
ATP	1.9 ± 0.1	2.0 ± 0.1	1.8 ± 0.1	1.7 ± 0.2	1.5 ± 0.3	1.6 ± 0.3	1.5 ± 0.2	1.6 ± 0.5
ADP	0.32 ± 0.02	0.29 ± 0.02	0.53 ± 0.10	0.30 ± 0.15	0.47 ± 0.14	0.53 ± 0.14	1.1 ± 0.3	0.87 ± 0.3
AMP	0.19 ± 0.02	0.16 ± 0.02	0.14 ± 0.05	0.10 ± 0.02	0.09 ± 0.03	0.20 ± 0.09	0.32 ± 0.05	0.22 ± 0.1
Citrate	5.2 ± 0.5	4.7 ± 0.3	16 ± 1	15 ± 2	13 ± 3	15 ± 4	13 ± 2	8.2 ± 1.8
2-Oxoglutarate	5.0 ± 0.2	5.2 ± 0.1	0.21 ± 0.01	0.35 ± 0.05	0.24 ± 0.03	1.5 ± 0.4	3.7 ± 0.7	1.8 ± 0.3
Glucose	(A) transfer to resting medium							
Glucose	(B) 22 h in resting medium (aerobiosis)							
Glucose	(C) 22 h in resting medium (anaerobiosis)							
Galactose	(D) 2 h in resting medium (aerobiosis)							

Table 2. Concentration of glycolytic intermediates in aerobiosis and anaerobiosis in yeast showing and lacking the Pasteur effect

A, B, C, D, refer to the treatments indicates in Table 1. After these treatments the cultures were split into two parts; one was kept in anaerobiosis and the other in aerobiosis for 1 h as described in Materials and Methods. Sampling and determination of metabolite was performed as stated in Materials and Methods. To calculate the intracellular concentrations it has been assumed that 1 g of wet yeast contains 0.6 ml cell sap [19]. Values are means of 4–12 different experiments followed by SEM. Values in bold-face type indicate a statistically significant difference between aerobiosis and anaerobiosis (*t* test: $P \leq 0.05$). Conditions B, C, D, show the Pasteur effect