Regulation of pyruvate catabolism in Escherichia coli: the role of redox environment

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ABBREVIATIONS

ac	acetate
ac-CoA	acetyl coenzyme-A
ATP	adenosine-5'-triphosphate
CoA	coenzyme-A
D	dilution rate (h^{-1})
(k)Da	(kilo)Dalton
DOT	dissolved oxygen tension
DRW	dry weight
ε	extincion coefficient (M^{-1} cm^{-1})
E_h	redoxpotential
$E_{m,7}$	midpoint redox potential at pH 7
E1	pyruvate dehydrogenase, pyruvate:lipoate oxidoreductase (EC 1.2.4.1)
E2	dihydrolipoyl transacetylase, acetyl-CoA:dihydrolipoamide S-acetyltransferase (EC 2.3.1.12)
E3	dihydrolipoamide dehydrogenase, NADH:lipoamide oxidoreductase (EC 1.8.1.4)
enzyme activity *in vitro*	Enzyme activity, measured in a cellfree extract under standard conditions
enzyme activity *in vivo*	enzyme activity, measured as a flux through the enzyme in whole cells
etOH	ethanol
FAD(H)	(reduced) flavin adenine dinucleotide
for	formate
glc	glucose
k_m	Michaelis constant: substrate concentration at the half maximal reaction velocity
lac	lactate
LB	Luria Bertani medium
LDH	lactate dehydrogenase
NAD(H)	(reduced) nicotinamide adenine dinucleotide
ND	not determined
q	specific rate of consumption or production
PDHc	pyruvate dehydrogenase complex
PFL	pyruvate formate lyase (EC 2.3.1.54)
pyr	pyruvate
SD	standard deviation
T	temperature