

TABLE 1. *Thermodynamic activation parameters for lactate dehydrogenase reactions*

Enzyme	Animal	Assay temp. (°C)	V_{\max}^*	E_a (cal/mol)§	ΔH^\ddagger (cal/mol)	ΔS^\ddagger (e.u.)	ΔG^\ddagger (cal/mol)
Muscle-type lactate dehydrogenase	Rabbit	5	0.975×10^3	13,100	12,550	-2.3	13,200
		35	1.08×10^3	13,100	12,500	-2.5	13,250
	Chick	5	1.93×10^3	11,100	10,550	-8.4	12,850
		35	1.41×10^3	11,100	10,450	-8.7	13,150
	Tuna	5	8.6×10^2	9,350	8,800	-13.3	12,500
		35	4.5×10^2	9,350	8,750	-13.5	12,900
	Halibut	5	4.12×10^2	9,300	8,750	-13.5	12,500
		35	2.1×10^2	9,300	8,650	-13.7	12,900
D-Glyceraldehyde-3-phosphate dehydrogenase	Rabbit	5	6.1	19,000	18,450	11.4	15,300
		35	180	19,000	18,400	11.3	14,900
	Lobster	5	22.7	14,500	13,950	-2.2	14,550
		35	220	14,500	13,900	-2.9	14,800
	Cod	5	18.5	14,500	13,950	-2.6	14,700
		35	225	14,500	13,900	-2.9	14,800
Muscle‡ glycogen phosphorylase-b	Rabbit	0	0.804	21,200	20,650	17.2	15,950
		30	60	21,200	20,600	17.8	15,200
	Lobster	0	4.5	15,900	15,350	1.1	15,050
		30	70.8	15,900	15,300	0.8	15,100

* μmol of substrate per min per mg of enzyme.

† Values computed on the basis of data given in Cowey (5).

‡ Values computed on the basis of data given in Assaf and Graves (6).

§ Standard deviations on E_a values were less than $\pm 10\%$.