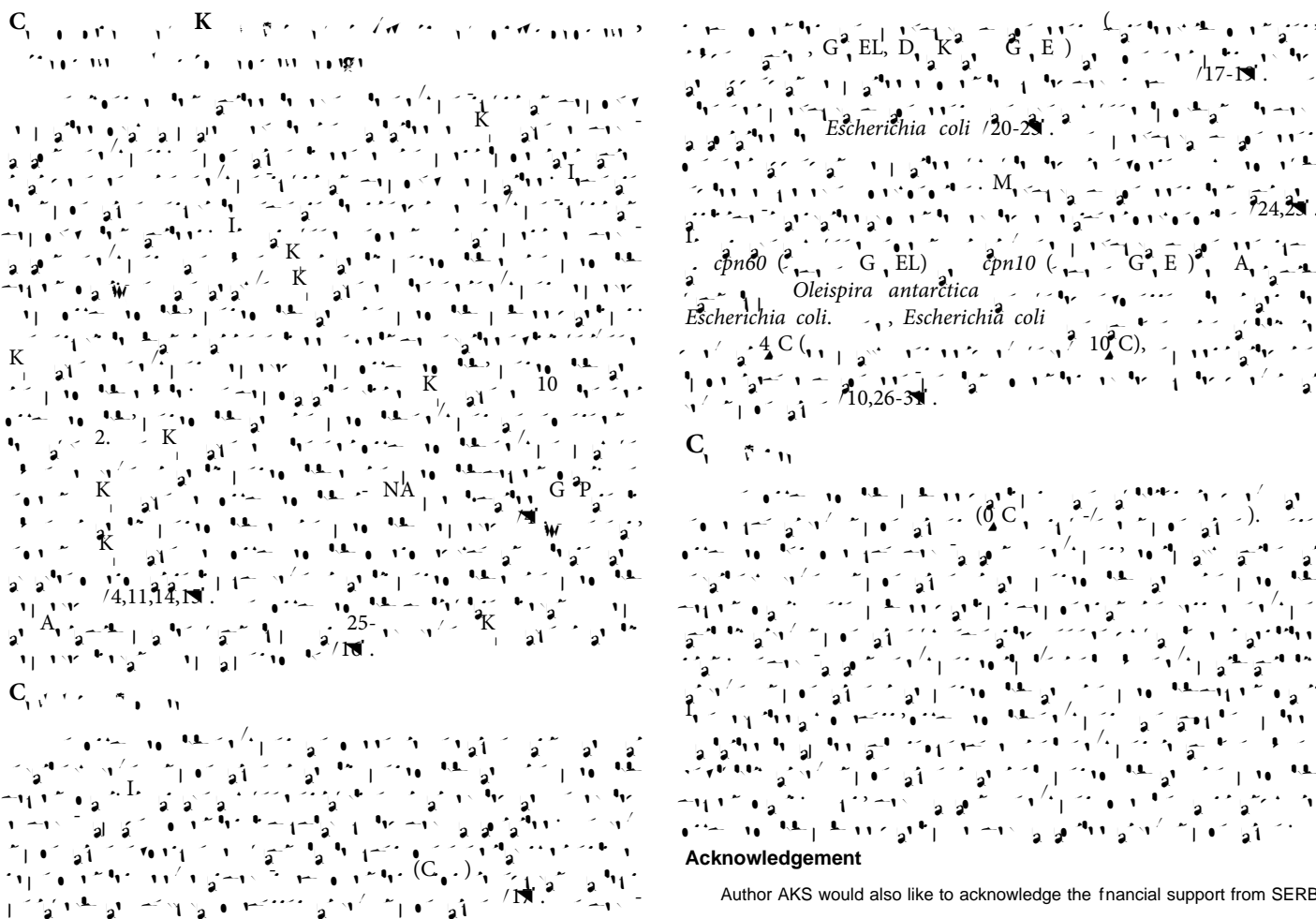


S.N.	Protein	Psychrophilic Organism (°C)	Mesophilic Organism (°C)	Thermophilic Organism (°C)	References
1.	t-RNA modification GTPase (TrmE)	12-15	37	70	[4]
2.	DNA ligase	4	30	45	[27]
3.	-Amylase	4	20-30	72	[10,26]
4.	Lactate dehydrogenase	3-8	25-30	91	[12,13]
5.	Ornithine transcarbamylase	5	37	55	[31]
6.	Glucose 6-phosphate dehydrogenase	5	45-50	92	[28]
7.	Aspartate aminotransferase	7	35	60-85	[29, 30]
8.	Glutamate dehydrogenase	14	40	60	[8]
9.	Phosphoglycerate kinase	25	40	76	[15]
10.	Alkaline phosphatase	25	35	65	[9,11,14]

Table 1: Optimum activity for enzyme homolog.

S.N.	Protein	Psychrophilic Organism (K_m , μ M)	Mesophilic Organism (K_m , μ M)	Thermophilic Organism (K_m , μ M)	References
1.	t-RNA modification GTPase (TrmE)	888.2	378.0	833.0	[4]
2.	DNA ligase	0.165	0.702	0.236	[27]
3.	-Amylase	234	223	260	[10,26]
4.	Lactate Dehydrogenase	200	400	0.000027	[12,13]
5.	Ornithine transcarbamylase	1780	2400	100	[31]
6.	Glucose 6-phosphate dehydrogenase	20	19.4	110	[28]
7.	Aspartate aminotransferase	5820	21040	5000	[29,30]
8.	Glutamate dehydrogenase	2000	1390	1930	[8]
9.	Phosphoglycerate Kinase	370	800	1900	[15]
10.	Alkaline phosphatase	1020	2500	3040	[9,11,14]

Table 2: Comparison of K_m value for psychrophilic, mesophilic and thermophilic enzymes.



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Citation: