CYTIDYLATE KINASE from a prokaryote (Lot 100101a)

Recombinant

E-CMPK **02/19**

(EC 2.7.4.25) (d)CMP kinase; ATP:CMP phosphotransferase; UMP-CMP kinase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 26,910)
- One major band on isoelectric focusing (pI ~ 6.2)

2. SPECIFIC ACTIVITY:

50 U/mg protein (on CMP) at pH 7.6 and 25°C

One Unit of cytidylate kinase is defined as the amount of enzyme required to produce one µmole of CDP from CMP and ATP per minute, in the presence of NADH, in TEA buffer (73 mM), pH 7.6 at 25°C.

3. SPECIFICITY:

Catalyses the following reaction:

ATP + (d)CMP = ADP + (d)CDP

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Enzyme	Substrate	%
Cytidylate kinase	CMP	100
ATPase	ATP	~ 0.0019
Myokinase	AMP	< 0.0001
NADH oxidase	NADH	< 0.0001

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.6 and up to 25°C

6. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in TEA buffer (100 mM), pH 7.6 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**