

Choline Kinase B, Human Recombinant

CATALOG NO:	P1220-10	10 µg
	P1220-50	50 µg
	P1220-250	250 µg
ALTERNATIVE NAMES:	CHKB, choline kinase beta, ATP:choline phosphotransferase B	
PURITY:	≥90% by SDS-PAGE analysis	
MOL. WEIGHT:	This protein is fused with polyhistidine tag at the N-terminus and has an apparent MW of ~48 kDa (1-395 aa)	
SOURCE:	<i>E. coli</i>	
FORM:	Liquid	
FORMULATION:	20 mM Tris, pH 8.0, 150 mM NaCl, 2 mM DTT, 2 mM EDTA and 20% glycerol	
STORAGE CONDITIONS:	Store at -20°C. Stable for at least 6 months as supplied. Avoid repeated freeze-thaw cycles.	
DESCRIPTION:	Choline Kinase (E.C. 2.7.1.32) is an enzyme which catalyzes the first reaction in the choline pathway for the synthesis of the membrane phospholipid phosphatidylcholine. It belongs to the family of transferase and uses Mg ²⁺ as a cofactor to transfer a phosphate group from ATP to choline to form phosphocholine. Choline Kinase plays a critical role in cell growth. In humans, choline kinase A and B are present and they share >60% homology. Both of them are implicated in different human diseases as choline kinase A is suggested to associate with breast, lung, colorectal, prostate and bladder cancers due to its high expression in different cancer tissues whereas choline kinase B is suggested to be involved in muscular dystrophy. BioVision's active human choline kinase B is suitable for functional assays, high-throughput screening and preclinical studies in drug discovery.	
SPECIFIC ACTIVITY:	≥0.05 unit/mg protein. One unit of CHKB catalyzes the phosphorylation of 1 µmole of choline to phosphocholine per minute at pH 8 and 37°C.	

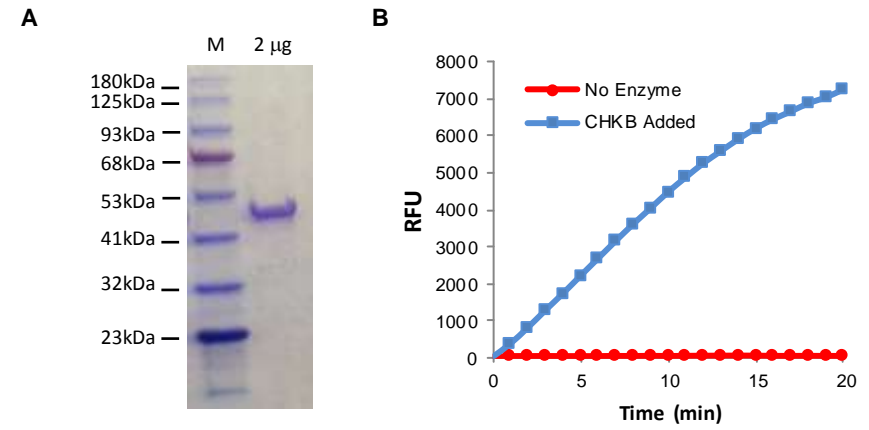


Fig A. SDS-PAGE (4-20%) of Recombinant CHKB: Recombinant protein loaded under reducing conditions and stained with Coomassie Blue. The protein shows a predicted MW of ~48 kDa.

Fig B. Activity plot of CHKB2 converting ATP to ADP: Rate of ADP production by CHKB was detected by increase of fluorescence.

RELATED PRODUCTS:

- Ethanolamine Kinase 2, Human Recombinant (**Cat. No. P1158-10**)
- ADP Colorimetric/Fluorometric Assay Kit (**Cat. No. K355-100**)
- Adenylate Kinase (AK) Activity Colorimetric/Fluorometric Assay Kit (**Cat. No. K350-100**)
- Pyruvate Kinase Activity Colorimetric/Fluorometric Assay Kit (**Cat. No. K709-100**)

For Research Use Only! Not to be used in humans.