For research use only

Guanylate kinase, human recombinant

CATALOG NO:	P1101-10 P1101-50	10 µg 50 µg	
ALTERNATE NAMES:	GMK, GMP kinase, Guanylate kinase		
CONCENTRATION:	1 mg/ml (determined by Bradford assay)		
SOURCE:	<i>E.coli</i> expressed Guanylate kinase recombinant protein and fused to His-tag at N-terminus (1-217aa), confirmed by MALDI-TOF		
PURITY:	> 90% by SDS-PAGE		
MOL. WEIGHT:	This protein is fused with 6x His tag at C terminus and the protein has a calculated MW of 23.9 kDa (217aa).		
FORM:	Liquid		
FORMULATION:	In Phosphate Buffered Saline (pH 7.4) containing 10% glycerol		
STORAGE CONDITIONS:	Store at +4°C for short term (1-2 weeks). For long term storage, aliquot and store at -70°C. Avoid repeated freeze/thaw cycles.		
SEQUENCE:	MGSSHHHHHH S LKRLLQEHSG II MQRDIAAGDF I DVDLQGVRNI F TEESLVKRLA A LKEALSEEIK KAG	SSGLVPRGSH MSGPRPVVLS FGFSVSHTT RNPRPGEENG EHAEFSGNL YGTSKVAVQA (ATDLRPIYI SVQPPSLHVL AQADMESSK EPGLFDVVII QRTGA	GPSGAGKSTL KDYYFVTREV VQAMNRICVL EQRLRQRNTE NDSLDQAYAE
DESCRIPTION:	GUK1, also known as GMK, belongs to the guanylate kinase family. This protein exists as a monomer that catalyzes the ATP- dependent conversion of GMP to GDP, thereby playing an essential role in the recycling of GMP. Via its catalytic activity, GUK1 is thought to participate in regulating the supply of guanine nucleotides to signal transduction pathways. Overexpression of GUK1 is associated with pituitary adenocarcinomas, suggesting that GUK1 is involved in tumorigenesis. Recombinant human GUK1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques		
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BIOLOGICAL ACTIVITY: Specific activity is >100 units/mg and is defined as the amount of enzyme that convert 1.0 umole of GMP and ATP to GDP and ADP per minute at pH 7.5 at 37C in coupled system with PK/LDH.



RELATED PRODUCT:

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