

AMP Kinase β 2 Protein, Human (His)

Cat. No.:	HY-P701702
Synonyms:	PRKAB2; 5'-AMP-activated protein kinase subunit beta-2; AMPK subunit beta-2
Species:	Human
Source:	E. coli
Accession:	O43741 (G2-I272)
Gene ID:	5565
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μ m filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>AMP Kinase β2 protein functions as the non-catalytic subunit within the AMP-activated protein kinase (AMPK), a pivotal energy sensor kinase crucial for cellular energy metabolism regulation. Upon sensing a decrease in intracellular ATP levels, AMPK orchestrates a response that activates energy-generating pathways while concurrently inhibiting energy-consuming processes, including protein, carbohydrate, and lipid biosynthesis, as well as cell growth and proliferation. This regulatory role is achieved through direct phosphorylation of metabolic enzymes and, over a longer timeframe, via the phosphorylation of transcription regulators. Additionally, AMP Kinase β2 contributes to the maintenance of cellular polarity by modulating the actin cytoskeleton, potentially by indirectly activating myosin. Serving as a scaffold, the beta non-catalytic subunit facilitates the assembly of the AMPK complex, connecting the alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2, or PRKAG3) through its C-terminus. The AMPK complex operates as a heterotrimer, essential for orchestrating the intricate balance of cellular energy dynamics.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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