Recombinant AAKB2 protein (His tag)

Catalog Number	541792
Synonyms	AMPK subunit beta-2
Species	Human
Expression System	E. coli
Accession	O43741
Molecular Weight	Predictes a molecular mass of 24.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	75-272
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 75-272 aa (O43741) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human 5'-AMP-activated protein kinase subunit beta-2 (AMPK subunit beta-2) fragment (residues 75-272) is a high-purity, stable protein designed for structural and biochemical studies. This fragment represents a soluble and well-folded region of PRKAB2, ideal for investigating AMPK complex assembly and energy-sensing mechanisms in cellular metabolism. AMPK subunit beta-2, encoded by the PRKAB2 gene, is a non-catalytic component of the AMP-activated protein kinase (AMPK) complex, which functions as a critical energy sensor in cells. AMPK regulates cellular energy homeostasis by activating ATP-producing pathways and inhibiting energy-consuming processes such as biosynthesis and cell proliferation. It achieves this through phosphorylation of metabolic enzymes and transcription regulators. The beta subunit serves as a structural scaffold, bridging the alpha and gamma subunits to facilitate AMPK complex formation and activity. While the subcellular location is unspecified, AMPK's role in remodeling the actin cytoskeleton suggests involvement in cellular polarity and structural organization.