Recombinant KAD2 protein (His tag)

Catalog Number	533663
Synonyms	ATP-AMP transphosphorylase; ATP:AMP phosphotransferase; Adenylate kinase cytosolic and mitochondrial; Adenylate monophosphate kinase; Lethal protein 754
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P34346
Gene ID	176118
Molecular Weight	Predictes a molecular mass of 29.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	1-251
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-251 aa (P34346) 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 Adenylate Kinase (EC 2.7.4.3) from Caenorhabditis elegans, corresponding to amino acids 1-251, is a high-purity protein fragment designed for structural and biochemical studies. This product captures the enzyme's core catalytic activity, enabling research into cellular energy homeostasis and nucleotide metabolism. Adenylate kinase, encoded by the let-754 gene in C. elegans, catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP, playing a crucial role in cellular energy balance and adenine nucleotide metabolism. Its activity is essential for regulating phosphate utilization and AMP de novo biosynthesis pathways. The enzyme localizes to both the cytoplasm (cytosol) and the mitochondrial intermembrane space, with predominant mitochondrial presence, underscoring its importance in energy management across cellular compartments. The recombinant fragment (1-251) represents a stable, soluble unit optimized for experimental applications.