

AK3L1 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P76717
Synonyms:	Adenylate kinase 4; Adenylate kinase 3-like; GTP:AMP phosphotransferase AK4; AK3
Species:	Human
Source:	Sf9 insect cells
Accession:	P27144 (A2-Y223)
Gene ID:	205
Molecular Weight:	Approximately 46 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, pH 8.0
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
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

The AK3L1 protein is actively involved in maintaining cellular nucleotide homeostasis by catalyzing the interconversion of nucleoside phosphates. This versatile enzyme efficiently phosphorylates AMP and dAMP using ATP as a phosphate donor, and selectively phosphorylates AMP when utilizing GTP as the phosphate donor. Additionally, AK3L1 displays broad nucleoside diphosphate kinase activity, further contributing to its role in nucleotide metabolism. Beyond its nucleotide-related functions, AK3L1 plays a crucial role in controlling cellular ATP levels by regulating the phosphorylation and activation of the energy sensor protein kinase AMPK. Moreover, it serves a protective function in the cellular response to oxidative stress, highlighting its significance in cellular responses to various physiological conditions.

Caution: Product has not been fully validated for medical applications. For research use only.

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