

Datasheet for ABIN7194160  
**AK4 Protein (GST tag,His tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	50 µg
Target:	AK4
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AK4 protein is labelled with GST tag,His tag.

## Product Details

Purpose:	Recombinant Human AK4/AK3L1 Protein (His & GST Tag)
Sequence:	Ala 2-Tyr 223
Characteristics:	A DNA sequence encoding the human AK4 (P27144-1) (Ala 2-Tyr 223) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.
Purity:	> 94 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

## Target Details

Target:	AK4
Alternative Name:	AK4/AK3L1 ( <a href="#">AK4 Products</a> )
Background:	Background: Adenylate kinase isoenzyme 4; mitochondrial; also known as ATP-AMP transphosphorylase; Adenylate kinase 3-like; AK4 and AK3L1; is a member the adenylate kinase family. AK4 / AK3L1 is localized to the mitochondrial matrix. Adenylate kinases regulate the

## Target Details

adenine and guanine nucleotide compositions within a cell by catalyzing the reversible transfer of phosphate group among these nucleotides. Five isozymes of adenylate kinase have been identified in vertebrates. Expression of these isozymes is tissue-specific and developmentally regulated. AK4 / AK3L1 catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. It may also be active with GTP. Adenylate kinase 4 ( AK4 / AK3L1 ) is a unique member with no enzymatic activity in the adenylate kinase (AK) family although it shares high sequence homology with other AKs. It remains unclear what physiological function AK4 might play or why it is enzymatically inactive. AK4 / AK3L1 retains the capability of binding nucleotides. It has a glutamine residue instead of a key arginine residue in the active site well conserved in other AKs. The enzymatically inactive AK4 is a stress responsive protein critical to cell survival and proliferation. AK4 / AK3L1 is likely that the interaction with the mitochondrial inner membrane protein ANT is important for AK4 to exert the protective benefits to cells under stress. AK4 / AK3L1 also acts on the specific mechanism of energy metabolism rather than control of the homeostasis of the ADP pool ubiquitously.

Synonym: AK3;AK3L1;AK3L2;AK4

Molecular Weight: 53 kDa

Pathways: [Nucleotide Phosphorylation](#), [Ribonucleoside Biosynthetic Process](#)

## Application Details

Restrictions: For Research Use only

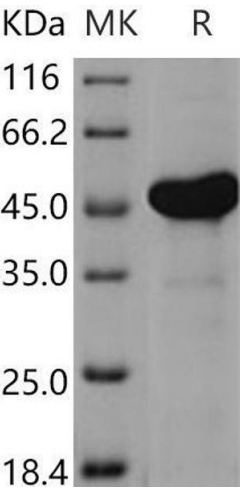
## Handling

Format: Frozen, Liquid

Buffer: Supplied as sterile 20 mM Tris, 500 mM NaCl, pH 8.0

Storage: -20 °C

Storage Comment: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.



**Western Blotting**

**Image 1.**