

## Recombinant Mouse Ak4 Protein, MYC/DDK-tagged

**Cat. No.** Ak4-563M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Purified recombinant protein of full-length mouse adenylate kinase 4 (Ak4), with C-terminal MYC/DDK tag, expressed in HEK293T cells.                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | Involved in maintaining the homeostasis of cellular nucleotides by catalyzing the interconversion of nucleoside phosphates. Efficiently phosphorylates AMP and dAMP using ATP as phosphate donor, but phosphorylates only AMP when using GTP as phosphate donor. Also displays broad nucleoside diphosphate kinase activity. Plays a role in controlling cellular ATP levels by regulating phosphorylation and activation of the energy sensor protein kinase AMPK. Plays a protective role in the cellular response to oxidative stress. |
| <b>Molecular Mass</b>   | 25.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>           | >80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage</b>          | Store at -80 centigrade after receiving vials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Concentration</b>    | >50 µg/mL as determined by microplate BCA method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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**Storage Buffer** 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

**Gene Name** Ak4 adenylate kinase 4 [ Mus musculus (house mouse) ]

**Official Symbol** Ak4

**Synonyms**

Ak4; adenylate kinase 4; Ak3; AK 4; Ak-3; Ak-4; Ak3l1; D4Ert274e; adenylate kinase 4, mitochondrial; ATP-AMP transphosphorylase; GTP:AMP phosphotransferase AK4, mitochondrial; adenylate kinase 3 alpha-like 1; adenylate kinase 3-like 1; adenylate kinase isoenzyme 4, mitochondrial; EC 2.7.4.10; EC 2.7.4.6

**Gene ID** 11639

**mRNA Refseq** NM\_001177602

**Protein Refseq** NP\_001171073

**UniProt ID** Q9WUR9

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