

Recombinant Mouse Aco1 protein, His-tagged

Cat. No. Aco1-1702M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Aco1 aa. (Lys26~Val189 (Accession # P28271)) fused with N-terminal His tag was produced in E. coli cells.
Species	Mouse
Source	E.coli
ProteinLength	Lys26~Val189
Description	This gene encodes a member of the aconitase/IPM isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Depending on iron levels in the cytosol, the encoded protein can function as either an aconitase enzyme or as an mRNA binding protein. When cellular iron levels are high, the encoded protein functions as an aconitase, an essential enzyme in the TCA cycle that catalyzes the conversion of citrate to isocitrate. When cellular iron levels are low, the encoded protein regulates iron uptake and utilization by binding to iron-responsive elements in the untranslated regions of mRNAs for genes involved in iron metabolism. Disruption of this gene is associated with pulmonary hypertension and polycythemia.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 20.4kDa
Endotoxin	<1.0EU per 1ug (determined by the LAL method)

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Purity	>95%
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage buffer	Supplied as lyophilized form in PBS, pH7.4, containing 5% sucrose, 0.01% sarcosyl.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.
Isoelectric Point	7.1

GENE INFORMATION

Gene Name	Aco1 aconitase 1 [Mus musculus (house mouse)]
Official Symbol	Aco1
Synonyms	Aco1; aconitase 1; Irp1; Aco-1; Irebp; cytoplasmic aconitate hydratase; IRE-BP 1; citrate hydro-lyase; cytoplasmic aconitase; iron regulatory protein 1; iron-responsive element-binding protein 1
Gene ID	11428
mRNA Refseq	NM_007386.2

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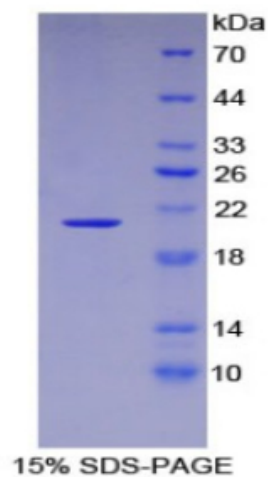
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Protein Refseq NP_031412.2

UniProt ID P28271

SDS-PAGE



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