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Datasheet for ABIN7194099

**Aconitase 1 Protein (ACO1) (His tag)**

## Overview

Quantity:	50 µg
Target:	Aconitase 1 (ACO1)
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Aconitase 1 protein is labelled with His tag.

## Product Details

Purpose:	Recombinant Human ACO1/irp1 Protein (His Tag)
Sequence:	Met 1-Lys 889
Characteristics:	A DNA sequence encoding the human ACO1 (P21399) (Met 1-Lys 889) was expressed, with a polyhistidine tag at the N-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

## Target Details

Target:	Aconitase 1 (ACO1)
Alternative Name:	ACO1/irp1 ( <a href="#">ACO1 Products</a> )
Background:	Background: Aconitase 1 (ACO1) or IRP1 is one member of the aconitase family that contains a diverse group of iron-sulphur(Fe-S) isomerases and two types of iron regulatory protein. Aconitase exists in two forms: one is soluble and the other is mitochondrial. ACO1 is the soluble

## Target Details

existing form, and the mitochondrial form is ACO2. Residues from all three N-terminal domains and the larger C-terminal domain contribute to the active site region. When the enzyme is activated, it gains an additional iron atom. ACO1 can assume two different functions in cells, depending on different conditions. During iron scarcity or oxidative stress, ACO1 binds to mRNA stem-loop structures called iron responsive elements to modulate the translation of iron metabolism genes. In iron-rich conditions, ACO1 binds an iron-sulfur cluster to function as a cytosolic aconitase.

Synonym: ACONS;HEL60;IREB1;IREBP;IREBP1;IRP1

Molecular Weight: 101 kDa

UniProt: [P21399](#)

Pathways: [Transition Metal Ion Homeostasis](#)

## Application Details

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 50 mM Tris, 100 mM NaCl, pH 8.0, 10 % glycerol, 2 mM DTT

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.