Recombinant Human ACO1, GST-tagged

Cat. No. ACO1-9294H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ACO1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	C-term-350a.a.
Description	Aconitase 1, also known as iron regulatory element binding protein 1 (IREB1), is a cytosolic protein which binds to iron-responsive elements (IREs). IREs are stem-loop structures found in the 5 UTR of ferritin mRNA, and in the 3 UTR of transferrin receptor mRNA. The iron-induced binding to the IRE results in repression of translation of ferritin mRNA, and inhibition of degradation of the otherwise rapidly degrading transferrin receptor mRNA. Thus, IREB1 plays a central role in cellular iron homeostasis. It was also shown to have aconitase activity, and hence grouped with the aconitase family of enzymes.
Storage	The protein is stored in PBS buffer at -20℃. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na2HPO4,17mM NaH2PO4, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100,15%glycerol.

GENE INFORMATION

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Gene Name	ACO1 aconitase 1, soluble [Homo sapiens]
Official Symbol	ACO1
Synonyms	ACO1; aconitase 1, soluble; IREB1; cytoplasmic aconitate hydratase; IREBP; IRP1; IRE-BP 1; aconitate hydratase; citrate hydro-lyase; iron regulatory protein 1; ferritin repressor protein; iron-responsive element binding protein 1; iron-responsive element-binding protein 1; ACONS; IREBP1;
Gene ID	48
mRNA Refseq	NM_002197
Protein Refseq	NP_002188
MIM	100880
UniProt ID	P21399
Chromosome Location	9p21.1
Pathway	Citrate cycle (TCA cycle), organism-specific biosystem; Citrate cycle (TCA cycle), conserved biosystem; Citrate cycle, first carbon oxidation, oxaloacetate => 2-oxoglutarate, organism-specific biosystem; Citrate cycle, first carbon oxidation, oxaloacetate => 2-oxoglutarate, conserved biosystem; Glyoxylate and dicarboxylate metabolism, organism-specific biosystem;
Function	4 iron, 4 sulfur cluster binding; 4 iron, 4 sulfur cluster binding; RNA binding; RNA binding; aconitate hydratase activity; aconitate hydratase activity; citrate hydro-lyase (cis-aconitate-forming) activity; iron-responsive element binding; iron-responsiv

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