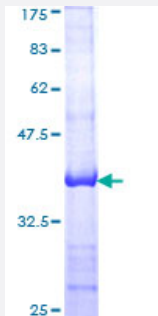


ACO1 (Human) Recombinant Protein (Q01)

Catalog # H00000048-Q01

Size 25 ug, 10 ug

Applications



Specification

Product Description	Human ACO1 partial ORF (AAH18103, 780 a.a. - 889 a.a.) recombinant protein with GST-tag at N-terminal.
Sequence	RDWAAKGPFLLGIKAVLAESYERIHRSNLVGMGVIPLEYLPGENADALGLTGQERYTIIIPENLKPQM KVQVKLDTGKTFQAVMRFTDVELTYFLNGGILNYMIRKMAK
Host	Wheat Germ (in vitro)
Theoretical MW (kDa)	37.84
Interspecies Antigen Sequence	Mouse (91)
Preparation Method	in vitro wheat germ expression system
Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — ACO1

Entrez GeneID [48](#)

GeneBank Accession# [BC018103](#)

Protein Accession# [AAH18103](#)

Gene Name ACO1

Gene Alias ACONS, IREB1, IREBP, IREBP1, IRP1

Gene Description aconitase 1, soluble

Omim ID [100880](#)

Gene Ontology [Hyperlink](#)

Gene Summary 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. [provided by RefSeq]

Other Designations OTTHUMP000000021176|OTTHUMP000000021177|OTTHUMP000000045233|aconitase 1|aconitase hydratase|citrate hydro-lyase|ferritin repressor protein|iron regulatory protein 1|iron-responsive element binding protein 1

Pathway

- [Biosynthesis of alkaloids derived from histidine and purine](#)

- [Biosynthesis of alkaloids derived from ornithine](#)
- [Biosynthesis of alkaloids derived from shikimate pathway](#)
- [Biosynthesis of alkaloids derived from terpenoid and polyketide](#)
- [Biosynthesis of phenylpropanoids](#)
- [Biosynthesis of plant hormones](#)
- [Biosynthesis of terpenoids and steroids](#)
- [Citrate cycle \(TCA cycle\)](#)
- [Glyoxylate and dicarboxylate metabolism](#)
- [Metabolic pathways](#)
- [Reductive carboxylate cycle \(CO₂ fixation\)](#)