

ACOD1 Protein, Mouse, Recombinant (His & Myc)

General Information

Synonyms:	Irg1; Cis-aconitic acid decarboxylase; Cis-aconitate decarboxylase; Aconitate decarboxylase 1; Aconitate decarboxylase; CAD; Acod1; Immune-responsive gene 1 protein
Protein Construction:	1-488 aa
Species:	Mouse
Expression Host:	Baculovirus Insect Cells
Accession:	P54987
Molecular Weight:	58.3 kDa (predicted)
AA Sequence:	MMLKSVTESFAGMIHGLKVNHLTDGIIRRSKRMILDSLGVGFLGTGTEVFHKVTQYSKIYSSNTSSTVWGRPDF RLPPTYAAFVNGVAVHSMDFDDTWHPATHPSGAVLPVLTALSEALPQIPKFSGLDLLLAFNVGIEVQGRMH FSKEAKDIPKRFHPPSVVGTGSAASAAASKFLGSLTKCREALAIQVSHAGAPIANAATQTKPLHIGNAAKHGM EATFLAMLGLQGNKQILDGSGFGAFYANYSPELPSLDSHIWLDDQDVAFKSFPAPHLATHWVADAAA AVRKHLVTPERALFPADHIERIVLRIPDVQYVNRPFDPSEHEARHSFQYVACASLLDGSITVPSFHSQQVNR PQVRELLKKVKLEHPPDNPPSFDTLTYCEISITLKDGTTFERSDTFYGHWKPLSQEDLRNKFRANASKMLCRD TVESLITVVEKLEDLEDCSVLTRLLKGPSVQDEASKLSSMSSFDHTTLPRFTNI

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Cis-aconitate decarboxylase that catalyzes production of itaconate and is involved in the inhibition of the inflammatory response. Acts as a negative regulator of the Toll-like receptors (TLRs)-mediated inflammatory innate response by stimulating the tumor necrosis factor alpha-induced protein TNFAIP3 expression via reactive oxygen species (ROS) in LPS-tolerized macrophages. Involved in antimicrobial response of innate immune cells; ACOD1-mediated itaconic acid production contributes to the antimicrobial activity of macrophages. Involved in antiviral response following infection by flavivirus in neurons: ACOD1-mediated itaconate production inhibits the activity of succinate dehydrogenase, generating a metabolic state in neurons that suppresses replication of viral genomes. Plays a role in the embryo implantation.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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