

Datasheet for ABIN7556176
IRG1 Protein (AA 1-488) (His tag)



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Overview

Quantity:	1 mg
Target:	IRG1
Protein Characteristics:	AA 1-488
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IRG1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Acod1 Protein expressed in mammalian cells.
Sequence:	<p>MMLKSVTESF AGMIHGLKVN HLTGDIIRRS KRMILDSLGV GFLGTGTEVF HKVTQYSKIY SSNTSSTVWG RPDFRLPPTY AAFVNGVAVH SMDFDDTWHP ATHPSGAVLP VLTALSEALP QIPKFSGLDL LLAFNVGIEV QGRLMHFSKE AKDIPKRFHP PSVVGTLGSA AAASKFLGLS LTKCREALAI AVSHAGAPIA NAATQTKPLH IGNAAKHGME ATFLAMLGLQ GNKQILDLS GFGAFYANYS PEDLPSLDLH IWLLDQQDVA FKSFPAHLAT HWVADAAAAY RKHLVTPERA LFPADHIERI VLRIPDVQYV NRPFPDSEHE ARHSFQYVAC ASLLDGSITV PSFHSQQVNR PQVRELLKKV KLEHPPDNPP SFDTLTYCEIS ITLKDGTTFE ERSDFYGHW RKPLSQEDLR NKFRANASKM LCRDVTESLI TVVEKLEDLE DCSVLTRLLK GPSVQDEASK LSSMSSFDHT TLPRFTNI Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different

Product Details

isoform, please contact us regarding an individual offer.

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

Grade:

custom-made

Target Details

Target:

IRG1

Alternative Name:

Acod1 ([IRG1 Products](#))

Background:

Cis-aconitate decarboxylase (CAD) (EC 4.1.1.6) (Aconitate decarboxylase) (Aconitate decarboxylase 1) (Cis-aconitic acid decarboxylase) (Immune-responsive gene 1 protein),FUNCTION: Cis-aconitate decarboxylase that catalyzes production of itaconate and is involved in the inhibition of the inflammatory response (PubMed:23609450, PubMed:23610393, PubMed:30635240, PubMed:31548418). 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 (PubMed:23609450). Involved in antimicrobial response of innate immune cells, ACOD1-mediated itaconic acid production contributes to the antimicrobial activity of macrophages by generating itaconate, leading to alkylation of proteins, such as TFEB (PubMed:23610393, PubMed:35662396). Involved in antiviral response following infection by flavivirus in neurons: ACOD1-mediated itaconate production inhibits the activity of succinate

Target Details

	dehydrogenase, generating a metabolic state in neurons that suppresses replication of viral genomes (PubMed:30635240). Plays a role in the embryo implantation (PubMed:14500577). {ECO:0000269 PubMed:14500577, ECO:0000269 PubMed:23609450, ECO:0000269 PubMed:23610393, ECO:0000269 PubMed:30635240, ECO:0000269 PubMed:31548418, ECO:0000269 PubMed:35662396}.
Molecular Weight:	53.8 kDa
UniProt:	P54987

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months