

IRG1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP18784c**Specification**

IRG1 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [A6NK06](#)**IRG1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 730249**Other Names**

Cis-aconitate decarboxylase, CAD, Aconitate decarboxylase, Cis-aconitic acid decarboxylase, Immune-responsive gene 1 protein, IRG1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IRG1 Antibody (Center) Blocking Peptide - Protein Information**Name** ACOD1 ([HGNC:33904](#))**Function**

Cis-aconitate decarboxylase that catalyzes production of itaconate and is involved in the inhibition of the inflammatory response (PubMed: [23609450](http://www.uniprot.org/citations/23609450), PubMed: [23610393](http://www.uniprot.org/citations/23610393), PubMed: [31548418](http://www.uniprot.org/citations/31548418), PubMed: [35662396](http://www.uniprot.org/citations/35662396)). 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23610393), PubMed: [35662396](http://www.uniprot.org/citations/35662396)). 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 (By similarity). Plays a role in the embryo

implantation (By similarity).

Cellular Location

Mitochondrion {ECO:0000250|UniProtKB:P54987}.

Tissue Location

Expressed in LPS-tolerized macrophages (at protein level). Expressed in peripheral blood mononuclear cells (PBMCs), microglia and macrophage cells.

IRG1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

IRG1 Antibody (Center) Blocking Peptide - Images**IRG1 Antibody (Center) Blocking Peptide - Background**

The function of this protein remains unknown.