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IRG1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18784c

Specification

IRG1 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	A6NK06
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**306-332**

IRG1 Antibody (Center) - Additional Information

Gene ID 730249

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

Target/Specificity
This IRG1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 306-332 amino acids from the Central region of human IRG1.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
IRG1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

IRG1 Antibody (Center) - 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, PubMed:23610393, PubMed:31548418, PubMed: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). 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 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}.

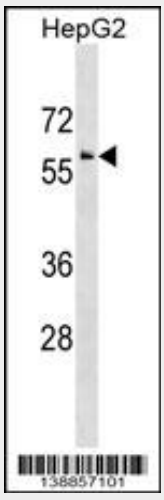
Tissue Location
Expressed in LPS-tolerized macrophages (at protein level). Expressed in peripheral blood mononuclear cells (PBMCs), microglia and macrophage cells.

IRG1 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IRG1 Antibody (Center) - Images



IRG1 Antibody (Center)(Cat. #AP18784c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the IRG1 antibody detected the IRG1 protein (arrow).

IRG1 Antibody (Center) - Background

The function of this protein remains unknown.