

**IRG1 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP56366****Specification**

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**IRG1 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">A6NK06</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

**IRG1 Polyclonal Antibody - Additional Information****Gene ID** 730249**Other Names**

Cis-aconitate decarboxylase, CAD, 4.1.1.6, Aconitate decarboxylase, Aconitate decarboxylase 1 {ECO:0000312|HGNC:HGNC:33904}, Cis-aconitic acid decarboxylase, Immune-responsive gene 1 protein, ACOD1 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=33904](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=33904) target="\_blank">HGNC:33904</a>), IRG1

**Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**IRG1 Polyclonal Antibody - 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:[23610393](#)), PubMed:[23610393](#)

[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 Polyclonal Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**IRG1 Polyclonal Antibody - Images**