

Anti-RIPK3 Antibody
Rabbit polyclonal antibody to RIPK3
Catalog # AP60384

Specification

Anti-RIPK3 Antibody - Product Information

Application	WB
Primary Accession	O9Y572
Other Accession	O9OZL0
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56887

Anti-RIPK3 Antibody - Additional Information

Gene ID 11035

Other Names

RIP3; Receptor-interacting serine/threonine-protein kinase 3; RIP-like protein kinase 3;
Receptor-interacting protein 3; RIP-3

Target/Specificity

Recognizes endogenous levels of RIPK3 protein.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-RIPK3 Antibody - Protein Information

Name RIPK3 ([HGNC:10021](#))

Function

Serine/threonine-protein kinase that activates necroptosis and apoptosis, two parallel forms of cell death (PubMed: [19524512](http://www.uniprot.org/citations/19524512) target="_blank">19524512, PubMed: [19524513](http://www.uniprot.org/citations/19524513) target="_blank">19524513, PubMed: [22265413](http://www.uniprot.org/citations/22265413) target="_blank">22265413, PubMed: [22265414](http://www.uniprot.org/citations/22265414) target="_blank">22265414, PubMed: [22421439](http://www.uniprot.org/citations/22421439) target="_blank">22421439, PubMed: [29883609](http://www.uniprot.org/citations/29883609) target="_blank">29883609, PubMed: [32657447](http://www.uniprot.org/citations/32657447) target="_blank">32657447)

target="_blank">32657447). Necroptosis, a programmed cell death process in response to death-inducing TNF-alpha family members, is triggered by RIPK3 following activation by ZBP1 (PubMed:19524512, PubMed:19524513, PubMed:22265413, PubMed:22265414, PubMed:22421439, PubMed:29883609, PubMed:32298652). Activated RIPK3 forms a necrosis- inducing complex and mediates phosphorylation of MLKL, promoting MLKL localization to the plasma membrane and execution of programmed necrosis characterized by calcium influx and plasma membrane damage (PubMed:19524512, PubMed:19524513, PubMed:22265413, PubMed:22265414, PubMed:22421439, PubMed:25316792, PubMed:29883609). In addition to TNF- induced necroptosis, necroptosis can also take place in the nucleus in response to orthomyxoviruses infection: following ZBP1 activation, which senses double-stranded Z-RNA structures, nuclear RIPK3 catalyzes phosphorylation and activation of MLKL, promoting disruption of the nuclear envelope and leakage of cellular DNA into the cytosol (By similarity). Also regulates apoptosis: apoptosis depends on RIPK1, FADD and CASP8, and is independent of MLKL and RIPK3 kinase activity (By similarity). Phosphorylates RIPK1: RIPK1 and RIPK3 undergo reciprocal auto- and trans-phosphorylation (PubMed:19524513). In some cell types, also able to restrict viral replication by promoting cell death- independent responses (By similarity). In response to Zika virus infection in neurons, promotes a cell death-independent pathway that restricts viral replication: together with ZBP1, promotes a death- independent transcriptional program that modifies the cellular metabolism via up-regulation expression of the enzyme ACOD1/IRG1 and production of the metabolite itaconate (By similarity). Itaconate inhibits the activity of succinate dehydrogenase, generating a metabolic state in neurons that suppresses replication of viral genomes (By similarity). RIPK3 binds to and enhances the activity of three metabolic enzymes: GLUL, GLUD1, and PYGL (PubMed:19498109). These metabolic enzymes may eventually stimulate the tricarboxylic acid cycle and oxidative phosphorylation, which could result in enhanced ROS production (PubMed:19498109).

Cellular Location

Cytoplasm, cytosol. Nucleus {ECO:0000250|UniProtKB:Q9QZL0}. Note=Mainly cytoplasmic Present in the nucleus in response to influenza A virus (IAV) infection. {ECO:0000250|UniProtKB:Q9QZL0}

Tissue Location

Highly expressed in the pancreas. Detected at lower levels in heart, placenta, lung and kidney

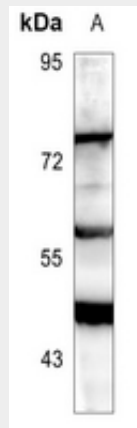
Anti-RIPK3 Antibody - Protocols

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](#)

Anti-RIPK3 Antibody - Images



Western blot analysis of RIPK3 expression in THP1 (A) whole cell lysates.

Anti-RIPK3 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human RIPK3. The exact sequence is proprietary.