

**Anti-RIP3 Antibody**  
Catalog # ABO11552**Specification****Anti-RIP3 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">Q9Y572</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**Description**

Rabbit IgG polyclonal antibody for Receptor-interacting serine/threonine-protein kinase 3(RIPK3) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-RIP3 Antibody - Additional Information**

**Gene ID** 11035

**Other Names**

Receptor-interacting serine/threonine-protein kinase 3, 2.7.11.1, RIP-like protein kinase 3, Receptor-interacting protein 3, RIP-3, RIPK3, RIP3

**Calculated MW**

56887 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Cytoplasm, cytosol . Cell membrane . Mitochondrion .

**Tissue Specificity**

Highly expressed in the pancreas. Detected at lower levels in heart, placenta, lung and kidney. Isoform 3 is significantly increased in colon and lung cancers. .

**Protein Name**

Receptor-interacting serine/threonine-protein kinase 3

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human RIP3(60-76aa EVKAMASLDNEFVLRLE).

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage****At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.****Sequence Similarities**

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.

**Anti-RIP3 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</a>, PubMed: [19524513](http://www.uniprot.org/citations/19524513) target="\_blank">19524513</a>, PubMed: [22265413](http://www.uniprot.org/citations/22265413) target="\_blank">22265413</a>, PubMed: [22265414](http://www.uniprot.org/citations/22265414) target="\_blank">22265414</a>, PubMed: [22421439](http://www.uniprot.org/citations/22421439) target="\_blank">22421439</a>, PubMed: [29883609](http://www.uniprot.org/citations/29883609) target="\_blank">29883609</a>, PubMed: [32657447](http://www.uniprot.org/citations/32657447) target="\_blank">32657447</a>). 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](http://www.uniprot.org/citations/19524512) target="\_blank">19524512</a>, PubMed: [19524513](http://www.uniprot.org/citations/19524513) target="\_blank">19524513</a>, PubMed: [22265413](http://www.uniprot.org/citations/22265413) target="\_blank">22265413</a>, PubMed: [22265414](http://www.uniprot.org/citations/22265414) target="\_blank">22265414</a>, PubMed: [22421439](http://www.uniprot.org/citations/22421439) target="\_blank">22421439</a>, PubMed: [29883609](http://www.uniprot.org/citations/29883609) target="\_blank">29883609</a>, PubMed: [32298652](http://www.uniprot.org/citations/32298652) target="\_blank">32298652</a>). 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](http://www.uniprot.org/citations/19524512) target="\_blank">19524512</a>, PubMed: [19524513](http://www.uniprot.org/citations/19524513) target="\_blank">19524513</a>, PubMed: [22265413](http://www.uniprot.org/citations/22265413) target="\_blank">22265413</a>, PubMed: [22265414](http://www.uniprot.org/citations/22265414) target="\_blank">22265414</a>, PubMed: [22421439](http://www.uniprot.org/citations/22421439) target="\_blank">22421439</a>, PubMed: [25316792](http://www.uniprot.org/citations/25316792) target="\_blank">25316792</a>, PubMed: [29883609](http://www.uniprot.org/citations/29883609) target="\_blank">29883609</a>). 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](http://www.uniprot.org/citations/19524513) target="\_blank">19524513</a>). 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:<a href="http://www.uniprot.org/citations/19498109" target="\_blank">19498109</a>). These metabolic enzymes may eventually stimulate the tricarboxylic acid cycle and oxidative phosphorylation, which could result in enhanced ROS production (PubMed:<a href="http://www.uniprot.org/citations/19498109" target="\_blank">19498109</a>).

#### 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

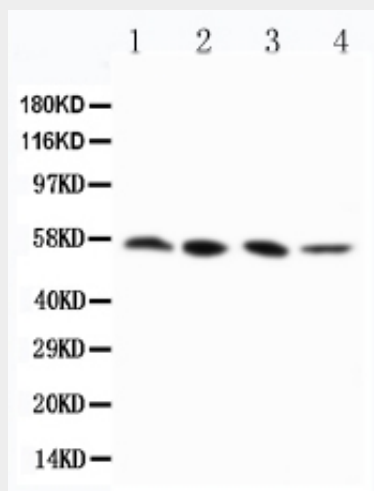
Highly expressed in the pancreas. Detected at lower levels in heart, placenta, lung and kidney

### Anti-RIP3 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

### Anti-RIP3 Antibody - Images



Anti-RIP3 antibody, ABO11552, Western blotting Lane 1: PANC Cell Lysate Lane 2: SW620 Cell Lysate Lane 3: SKOV-3 Cell Lysate Lane 4: M231 Cell Lysate

### Anti-RIP3 Antibody - Background

Receptor-interacting serine/threonine-protein kinase 3(RIPK3), also known as RIP3 is an enzyme that in humans is encoded by the RIPK3 gene. This gene is mapped to 14q12. The product of this gene is a member of the receptor-interacting protein(RIP) family of serine/threonine protein kinases, and contains a C-terminal domain unique from other RIP family members. The encoded protein is predominantly localized to the cytoplasm, and can undergo nucleocytoplasmic shuttling dependent on novel nuclear localization and export signals. It is a component of the tumor necrosis factor(TNF) receptor-I signaling complex, and can induce apoptosis and weakly activate the NF-kappaB transcription factor.