

Rabbit RIP3 Polyclonal Antibody | anti-RIP3 antibody

RIP3 Antibody

CATALOG # AAA329574	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

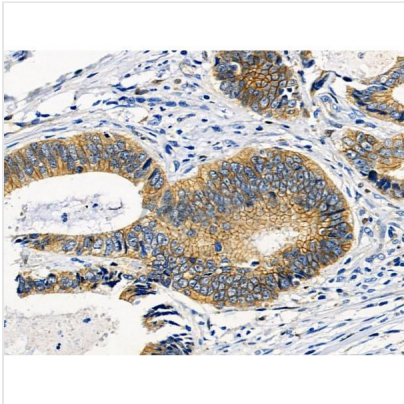
RIP3; Polyclonal Antibody; RIP3 Antibody; anti-RIP3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	RIP3 Antibody detects endogenous levels of total RIP3. Tissue Specificity: Expressed in embryo and in adult spleen, liver, testis, heart, brain and lung.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-RIP3 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from mouse RIP3.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	RIPK1 and RIPK3 undergo reciprocal auto- and trans-phosphorylation (By similarity). Autophosphorylated following interaction with ZBP1. Phosphorylation of Ser-204 plays a role in the necroptotic function of RIPK3 (By similarity). Autophosphorylates at Thr-231 and Ser-232 following activation by ZBP1: phosphorylation at these sites is a hallmark of necroptosis and is required for binding MLKL. Phosphorylation at Thr-187 is important for its kinase activity, interaction with PELI1 and for its ability to mediate TNF-induced necroptosis (By similarity).Polyubiquitinated with 'Lys-48' and 'Lys-63'-linked chains by BIRC2/c-IAP1 and BIRC3/c-IAP2, leading to activation of NF-kappa-B. Ubiquitinated by STUB1 leading to its subsequent proteasome-dependent degradation.
Subunit Structure	Interacts (via RIP homotypic interaction motif) with RIPK1 (via RIP homotypic interaction motif); this interaction induces RIPK1 phosphorylation and formation of a RIPK1-RIPK3 necrosis-inducing complex. Interacts with MLKL; the interaction is direct and triggers necroptosis. Interacts with ZBP1 (via RIP homotypic interaction motif); interaction with ZBP1 activates RIPK3, triggering necroptosis. Upon TNF-induced necrosis, the RIPK1-RIPK3 dimer further interacts with PGAM5 and MLKL; the formation of this complex leads to PGAM5 phosphorylation and increase in PGAM5 phosphatase activity (By similarity). Binds TRAF2 and is recruited to the TNFR-1 signaling complex (By similarity). Interacts with PYGL, GLUL and GLUD1; these interactions result in activation of these metabolic enzymes (By similarity). Interacts with BIRC2/c-IAP1, BIRC3/c-IAP2 and XIAP/BIRC4 (By similarity). Interacts with ARHGEF2 (By similarity). Interacts with PELI1 (via atypical FHA domain); the phosphorylated form at Thr-187 binds preferentially to PELI1. Interacts with BUB1B, TRAF2 and STUB1 (By similarity). Interacts with CASP6 (By similarity). (Microbial infection) Interacts (via RIP homotypic interaction motif) with murid herpesvirus protein RIR1; this interaction disrupts RIP3-RIP1 interactions characteristic of TNF-alpha induced necroptosis, thereby suppressing this death pathway.

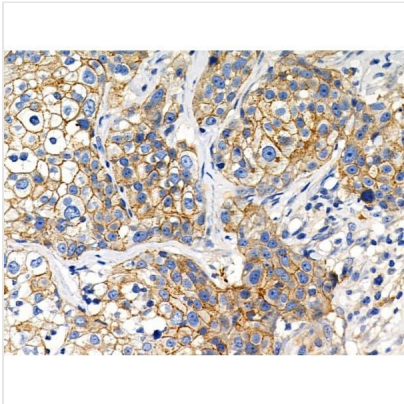
Similarity	The RIP homotypic interaction motif (RHIM) mediates interaction with the RHIM motif of RIPK1. Both motifs form a hetero-amyloid serpentine fold, stabilized by hydrophobic packing and featuring an unusual Cys-Ser ladder of alternating Ser (from RIPK1) and Cys (from RIPK3).Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.
Subcellular Location	Cytoplasm>Cytosol. Nucleus. Note: Mainly cytoplasmic (PubMed:32200799, PubMed:32296175). Present in the nucleus in response to influenza A virus (IAV) infection (PubMed:32200799).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



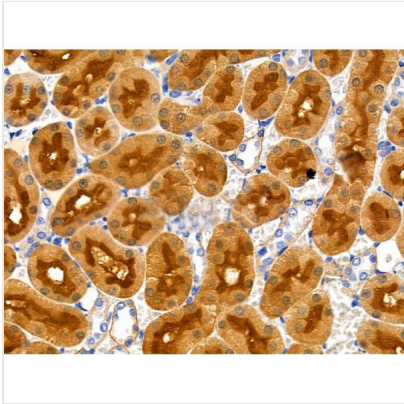
IHC (Immunohistochemistry)

At 1/100 staining Human colorectal cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



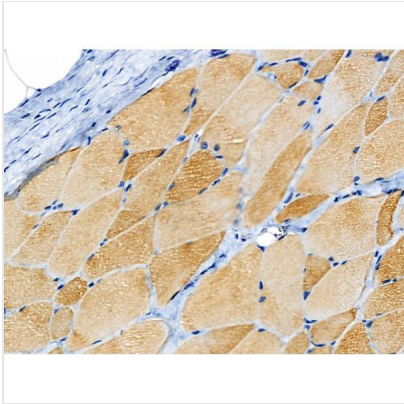
IHC (Immunohistochemisry)

At 1/100 staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)

Staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat skin tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-RIP3 antibody

Serine/threonine-protein kinase that activates necroptosis and apoptosis, two parallel forms of cell death. Necroptosis, a programmed cell death process in response to death-inducing TNF- α family members, is triggered by RIPK3 following activation by ZBP1. 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. 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. Also regulates apoptosis: apoptosis depends on RIPK1, FADD and CASP8, and is independent of MLKL and RIPK3 kinase activity. Phosphorylates RIPK1: RIPK1 and RIPK3 undergo reciprocal auto- and trans-phosphorylation (By similarity). In some cell types, also able to restrict viral replication by promoting cell death-independent responses. In response to flavivirus 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. Itaconate inhibits the activity of succinate dehydrogenase, generating a metabolic state in neurons that suppresses replication of viral genomes. RIPK3 binds to and enhances the activity of three metabolic enzymes: GLUL, GLUD1, and PYGL (By similarity). These metabolic enzymes may eventually stimulate the tricarboxylic acid cycle and oxidative phosphorylation, which could result in enhanced ROS production (By similarity).

NCBI AND UNIPROT INFORMATION

NCBI GI #	6063101
NCBI GeneID	56532
UniProt Accession #	Q9QZL0; Q3U3Z9; Q8K2Y2; G3X8V8
NCBI Official Full Name	receptor interacting protein 3
NCBI Official Synonym Full Names	receptor-interacting serine-threonine kinase 3
NCBI Official Symbol	Ripk3
NCBI Official Synonym Symbols	Rip3; AW107945; 2610528K09Rik
NCBI Protein Information	receptor-interacting serine/threonine-protein kinase 3; RIP-3; mRIP3; RIP-like protein kinase 3; receptor interacting protein 3; receptor-interacting protein 3
UniProt Protein Name	Receptor-interacting serine/threonine-protein kinase 3
UniProt Gene Name	Ripk3
UniProt Synonym Gene Names	Rip3; RIP-3; mRIP3
UniProt Entry Name	RIPK3_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/rip3-antibody-peptide-elisa-immunohistochemistry-elisa/329574>