

RIPK1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13893a

Specification

RIPK1 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q13546
Other Accession	NP_003795.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	75931
Antigen Region	152-180

RIPK1 Antibody (N-term) - Additional Information

Gene ID 8737

Other Names

Receptor-interacting serine/threonine-protein kinase 1, Cell death protein RIP, Receptor-interacting protein 1, RIP-1, Serine/threonine-protein kinase RIP, RIPK1, RIP, RIP1

Target/Specificity

This RIPK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 152-180 amino acids from the N-terminal region of human RIPK1.

Dilution

WB~~1:1000

IHC-P~~1:10~50

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

RIPK1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

RIPK1 Antibody (N-term) - Protein Information

Name RIPK1 ([HGNC:10019](#))

Function Serine-threonine kinase which is a key regulator of TNF- mediated apoptosis, necroptosis and inflammatory pathways (PubMed:[17703191](#), PubMed:[24144979](#), PubMed:[31827280](#), PubMed:[31827281](#), PubMed:[32657447](#), PubMed:[35831301](#)). Exhibits kinase activity-dependent functions that regulate cell death and kinase-independent scaffold functions regulating inflammatory signaling and cell survival (PubMed:[11101870](#), PubMed:[19524512](#), PubMed:[19524513](#), PubMed:[29440439](#), PubMed:[30988283](#)). Has kinase-independent scaffold functions: upon binding of TNF to TNFR1, RIPK1 is recruited to the TNF-R1 signaling complex (TNF-RSC also known as complex I) where it acts as a scaffold protein promoting cell survival, in part, by activating the canonical NF-kappa-B pathway (By similarity). Kinase activity is essential to regulate necroptosis and apoptosis, two parallel forms of cell death: upon activation of its protein kinase activity, regulates assembly of two death-inducing complexes, namely complex IIa (RIPK1-FADD-CASP8), which drives apoptosis, and the complex IIb (RIPK1-RIPK3-MLKL), which drives necroptosis (By similarity). RIPK1 is required to limit CASP8- dependent TNFR1-induced apoptosis (By similarity). In normal conditions, RIPK1 acts as an inhibitor of RIPK3-dependent necroptosis, a process mediated by RIPK3 component of complex IIb, which catalyzes phosphorylation of MLKL upon induction by ZBP1 (PubMed:[19524512](#), PubMed:[19524513](#), PubMed:[29440439](#), PubMed:[30988283](#)). Inhibits RIPK3- mediated necroptosis via FADD-mediated recruitment of CASP8, which cleaves RIPK1 and limits TNF-induced necroptosis (PubMed:[19524512](#), PubMed:[19524513](#), PubMed:[29440439](#), PubMed:[30988283](#)). Required to inhibit apoptosis and necroptosis during embryonic development: acts by preventing the interaction of TRADD with FADD thereby limiting aberrant activation of CASP8 (By similarity). In addition to apoptosis and necroptosis, also involved in inflammatory response by promoting transcriptional production of pro-inflammatory cytokines, such as interleukin-6 (IL6) (PubMed:[31827280](#), PubMed:[31827281](#)). Phosphorylates RIPK3: RIPK1 and RIPK3 undergo reciprocal auto- and trans- phosphorylation (PubMed:[19524513](#)). Phosphorylates DAB2IP at 'Ser-728' in a TNF-alpha-dependent manner, and thereby activates the MAP3K5-JNK apoptotic cascade (PubMed:[15310755](#), PubMed:[17389591](#)). Required for ZBP1-induced NF-kappa-B activation in response to DNA damage (By similarity).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q60855}. Cell membrane {ECO:0000250|UniProtKB:Q9ZUF4}

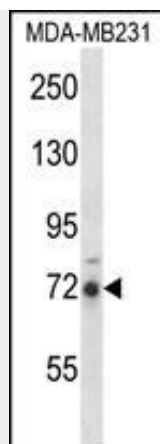
RIPK1 Antibody (N-term) - Protocols

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

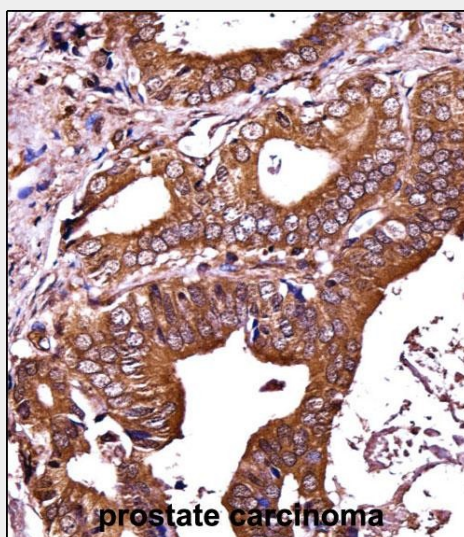
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RIPK1 Antibody (N-term) - Images





RIPK1 Antibody (N-term) (Cat. #AP13893a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane). This demonstrates the RIPK1 antibody detected the RIPK1 protein (arrow).



RIPK1 Antibody (N-term) (AP13893a) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of RIPK1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

RIPK1 Antibody (N-term) - Background

Essential adapter molecule for the activation of NF-kappa-B. Following different upstream signals (binding of inflammatory cytokines, stimulation of pathogen recognition receptors, or DNA damage), particular RIPK1-containing complexes are formed, initiating a limited number of cellular responses. Upon TNFA stimulation RIPK1 is recruited to a TRADD-TRAF complex initiated by TNFR1 trimerization. There, it is ubiquitinated via 'Lys-63'-link chains, inducing its association with the IKK complex, and its activation through NEMO binding of polyubiquitin chains.

RIPK1 Antibody (N-term) - References

Kim, S., et al. Cancer Sci. 101(11):2425-2429(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Chae, Y.S., et al. J. Cancer Res. Clin. Oncol. (2010) In press :
Couch, F.J., et al. Cancer Epidemiol. Biomarkers Prev. 19(1):251-257(2010)
Vandenabeele, P., et al. Sci Signal 3 (115), RE4 (2010) :