

**RIP Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10219****Specification**

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**RIP Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC, IP            |
| Primary Accession | <a href="#">Q13546</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Isotype           | Rabbit IgG             |
| Calculated MW     | 75931                  |

**RIP Antibody - Additional Information****Gene ID 8737**

|                     |                                                                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Application & Usage | Western blot analysis (2-6 µg/ml), immunoprecipitation and Immunohistochemistry. However, the optimal conditions should be determined individually. |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|

**Other Names**

RIPK1, FLJ39204, Rinp, RIPK1, Receptor interacting protein

**Target/Specificity**

RIP

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit anti-RIP polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

RIP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## RIP Antibody - Protein Information

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

### Function

Serine-threonine kinase which is a key regulator of TNF- mediated apoptosis, necroptosis and inflammatory pathways (PubMed:<a href="http://www.uniprot.org/citations/17703191" target="\_blank">17703191</a>, PubMed:<a href="http://www.uniprot.org/citations/24144979" target="\_blank">24144979</a>, PubMed:<a href="http://www.uniprot.org/citations/31827280" target="\_blank">31827280</a>, PubMed:<a href="http://www.uniprot.org/citations/31827281" target="\_blank">31827281</a>, PubMed:<a href="http://www.uniprot.org/citations/32657447" target="\_blank">32657447</a>, PubMed:<a href="http://www.uniprot.org/citations/35831301" target="\_blank">35831301</a>). Exhibits kinase activity-dependent functions that regulate cell death and kinase-independent scaffold functions regulating inflammatory signaling and cell survival (PubMed:<a href="http://www.uniprot.org/citations/11101870" target="\_blank">11101870</a>, PubMed:<a href="http://www.uniprot.org/citations/19524512" target="\_blank">19524512</a>, PubMed:<a href="http://www.uniprot.org/citations/19524513" target="\_blank">19524513</a>, PubMed:<a href="http://www.uniprot.org/citations/29440439" target="\_blank">29440439</a>, PubMed:<a href="http://www.uniprot.org/citations/30988283" target="\_blank">30988283</a>). 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:<a href="http://www.uniprot.org/citations/19524512" target="\_blank">19524512</a>, PubMed:<a href="http://www.uniprot.org/citations/19524513" target="\_blank">19524513</a>, PubMed:<a href="http://www.uniprot.org/citations/29440439" target="\_blank">29440439</a>, PubMed:<a href="http://www.uniprot.org/citations/30988283" target="\_blank">30988283</a>). Inhibits RIPK3- mediated necroptosis via FADD-mediated recruitment of CASP8, which cleaves RIPK1 and limits TNF-induced necroptosis (PubMed:<a href="http://www.uniprot.org/citations/19524512" target="\_blank">19524512</a>, PubMed:<a href="http://www.uniprot.org/citations/19524513" target="\_blank">19524513</a>, PubMed:<a href="http://www.uniprot.org/citations/29440439" target="\_blank">29440439</a>, PubMed:<a href="http://www.uniprot.org/citations/30988283" target="\_blank">30988283</a>). 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:<a href="http://www.uniprot.org/citations/31827280" target="\_blank">31827280</a>, PubMed:<a href="http://www.uniprot.org/citations/31827281" target="\_blank">31827281</a>). Phosphorylates RIPK3: RIPK1 and RIPK3 undergo reciprocal auto- and trans- phosphorylation (PubMed:<a href="http://www.uniprot.org/citations/19524513" target="\_blank">19524513</a>). Phosphorylates DAB2IP at 'Ser-728' in a TNF-alpha-dependent manner, and thereby activates the MAP3K5-JNK apoptotic cascade (PubMed:<a href="http://www.uniprot.org/citations/15310755" target="\_blank">15310755</a>, PubMed:<a href="http://www.uniprot.org/citations/17389591" target="\_blank">17389591</a>). 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}

### **RIP 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](#)

### **RIP Antibody - Images**

### **RIP Antibody - Background**

RIP (Receptor Interacting Protein) is a 74 kDa Ser/Thr kinase which interacts with CD95 (Fas/Apo1) receptor and the tumor necrosis factor receptor (TNFR1). It is a cell death domain adapter protein which can bind to the adapter proteins TRADD, RAID, and TRAF2. RIP contains an N-terminal region with homology to protein kinase, an intermediate domain capable of association with MAPKKK and a C-terminal region containing an intracellular death domain motif. RIP activates both p38 MAP kinase and SAPK families. In vitro, RIP induces apoptosis, as well as SAPK/JNK and NF- $\kappa$ B activation. RIP possesses kinase activity as it autophosphorylates itself on serine and threonine residues.