

**RIP2 Antibody**  
**Rabbit mAb**  
**Catalog # AP93106**

## Specification

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### RIP2 Antibody - Product Information

Application	<b>WB</b>
Primary Accession	<a href="#">O43353</a>
Reactivity	<b>Rat</b>
Clonality	<b>Monoclonal</b>
<b>Other Names</b>	
CARD carrying kinase; CARD3; CARDIAK; CCK; CLARP kinase; GIG30; Growth inhibiting gene 30; Receptor interacting protein 2; RICK; RIP 2; Ripk2; TNFRSF;	
Isotype	<b>Rabbit IgG</b>
Host	<b>Rabbit</b>
Calculated MW	<b>61195 Da</b>

### RIP2 Antibody - Additional Information

Purification	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human RIP2</b>
Description	<b>Activates pro-caspase-1 and pro-caspase-8. Potentiates CASP8-mediated apoptosis. Activates NF-kappa-B.</b>
Storage Condition and Buffer	<b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>

### RIP2 Antibody - Protein Information

**Name** RIPK2 {ECO:0000303|PubMed:30026309, ECO:0000312|HGNC:HGNC:10020}

#### Function

Serine/threonine/tyrosine-protein kinase that plays an essential role in modulation of innate and adaptive immune responses (PubMed: [14638696](http://www.uniprot.org/citations/14638696), PubMed: [17054981](http://www.uniprot.org/citations/17054981), PubMed: [21123652](http://www.uniprot.org/citations/21123652), PubMed: [28656966](http://www.uniprot.org/citations/28656966), PubMed: [9575181](http://www.uniprot.org/citations/9575181), PubMed: [9642260](http://www.uniprot.org/citations/9642260)). Acts as a key effector of NOD1 and NOD2 signaling pathways: upon activation by bacterial peptidoglycans, NOD1 and NOD2 oligomerize and recruit RIPK2 via CARD-CARD domains, leading to the formation of RIPK2 filaments (PubMed: [17054981](http://www.uniprot.org/citations/17054981), PubMed: [17054981](http://www.uniprot.org/citations/17054981)).

href="http://www.uniprot.org/citations/17562858" target="\_blank">17562858</a>, PubMed:<a href="http://www.uniprot.org/citations/21123652" target="\_blank">21123652</a>, PubMed:<a href="http://www.uniprot.org/citations/22607974" target="\_blank">22607974</a>, PubMed:<a href="http://www.uniprot.org/citations/28656966" target="\_blank">28656966</a>, PubMed:<a href="http://www.uniprot.org/citations/29452636" target="\_blank">29452636</a>, PubMed:<a href="http://www.uniprot.org/citations/30026309" target="\_blank">30026309</a>). Once recruited, RIPK2 autophosphorylates and undergoes 'Lys-63'-linked polyubiquitination by E3 ubiquitin ligases XIAP, BIRC2 and BIRC3, as well as 'Met-1'-linked (linear) polyubiquitination by the LUBAC complex, becoming a scaffolding protein for downstream effectors (PubMed:<a href="http://www.uniprot.org/citations/22607974" target="\_blank">22607974</a>, PubMed:<a href="http://www.uniprot.org/citations/28545134" target="\_blank">28545134</a>, PubMed:<a href="http://www.uniprot.org/citations/29452636" target="\_blank">29452636</a>, PubMed:<a href="http://www.uniprot.org/citations/30026309" target="\_blank">30026309</a>, PubMed:<a href="http://www.uniprot.org/citations/30279485" target="\_blank">30279485</a>, PubMed:<a href="http://www.uniprot.org/citations/30478312" target="\_blank">30478312</a>). 'Met-1'-linked polyubiquitin chains attached to RIPK2 recruit IKBKG/NEMO, which undergoes 'Lys-63'-linked polyubiquitination in a RIPK2-dependent process (PubMed:<a href="http://www.uniprot.org/citations/17562858" target="\_blank">17562858</a>, PubMed:<a href="http://www.uniprot.org/citations/22607974" target="\_blank">22607974</a>, PubMed:<a href="http://www.uniprot.org/citations/29452636" target="\_blank">29452636</a>, PubMed:<a href="http://www.uniprot.org/citations/30026309" target="\_blank">30026309</a>). 'Lys-63'-linked polyubiquitin chains attached to RIPK2 serve as docking sites for TAB2 and TAB3 and mediate the recruitment of MAP3K7/TAK1 to IKBKG/NEMO, inducing subsequent activation of IKBKB/IKK (PubMed:<a href="http://www.uniprot.org/citations/18079694" target="\_blank">18079694</a>). In turn, NF-kappa-B is released from NF-kappa-B inhibitors and translocates into the nucleus where it activates the transcription of hundreds of genes involved in immune response, growth control, or protection against apoptosis (PubMed:<a href="http://www.uniprot.org/citations/18079694" target="\_blank">18079694</a>). The protein kinase activity is dispensable for the NOD1 and NOD2 signaling pathways (PubMed:<a href="http://www.uniprot.org/citations/29452636" target="\_blank">29452636</a>, PubMed:<a href="http://www.uniprot.org/citations/30026309" target="\_blank">30026309</a>). Contributes to the tyrosine phosphorylation of the guanine exchange factor ARHGEF2 through Src tyrosine kinase leading to NF-kappa-B activation by NOD2 (PubMed:<a href="http://www.uniprot.org/citations/21887730" target="\_blank">21887730</a>). Also involved in adaptive immunity: plays a role during engagement of the T-cell receptor (TCR) in promoting BCL10 phosphorylation and subsequent NF-kappa-B activation (PubMed:<a href="http://www.uniprot.org/citations/14638696" target="\_blank">14638696</a>). Plays a role in the inactivation of RHOA in response to NGFR signaling (PubMed:<a href="http://www.uniprot.org/citations/26646181" target="\_blank">26646181</a>).

### Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein. Endoplasmic reticulum. Note=Recruited to the cell membrane by NOD2 following stimulation by bacterial peptidoglycans

### Tissue Location

Detected in heart, brain, placenta, lung, peripheral blood leukocytes, spleen, kidney, testis, prostate, pancreas and lymph node.

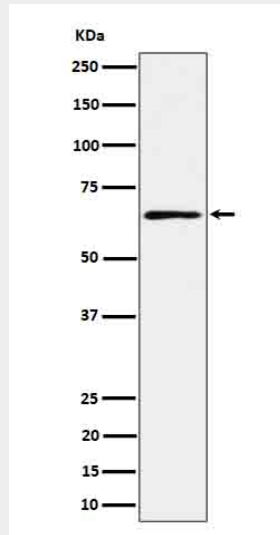
### RIP2 Antibody - Protocols

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](#)

### RIP2 Antibody - Images



Western blot analysis of RIP2 in K562 cell lysate.