

# RIP2 Rabbit mAb

Catalog # AP78836

## Product Information

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|                   |   |
|-------------------|---|
| Application       | WB  |
| Primary Accession | <a href="#">O43353</a>                        |
| Reactivity        | Rat, Human, Mouse                             |
| Host              | Rabbit  |
| Clonality         | Monoclonal Antibody                           |
| Isotype           | IgG   |
| Conjugate         | Unconjugated                                  |
| Immunogen         | A synthesized peptide derived from human RIP2 |
| Purification      | Affinity Chromatography                       |
| Calculated MW     | 61195   |

## Additional Information

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|-------------|--|
| Gene ID     | 8767   |
| Other Names | RIPK2  |
| Dilution    | WB~~1/500-1/1000   |
| Format      | Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol. |
| Storage     | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.           |

## Protein Information

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|----------|---|
| 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: <a href="#">14638696</a> , PubMed: <a href="#">17054981</a> , PubMed: <a href="#">21123652</a> , PubMed: <a href="#">28656966</a> , PubMed: <a href="#">9575181</a> , PubMed: <a href="#">9642260</a> ). 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: <a href="#">17054981</a> , PubMed: <a href="#">17562858</a> , PubMed: <a href="#">21123652</a> , PubMed: <a href="#">22607974</a> , PubMed: <a href="#">28656966</a> , PubMed: <a href="#">29452636</a> , PubMed: <a href="#">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="#">22607974</a> , PubMed: <a href="#">28545134</a> , PubMed: <a href="#">29452636</a> , PubMed: <a href="#">30026309</a> , PubMed: <a href="#">30279485</a> , |

PubMed:[30478312](#)). 'Met-1'-linked polyubiquitin chains attached to RIPK2 recruit IKBKG/NEMO, which undergoes 'Lys-63'-linked polyubiquitination in a RIPK2-dependent process (PubMed:[17562858](#), PubMed:[22607974](#), PubMed:[29452636](#), PubMed:[30026309](#)). '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/IKKB (PubMed:[18079694](#)). 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:[18079694](#)). The protein kinase activity is dispensable for the NOD1 and NOD2 signaling pathways (PubMed:[29452636](#), PubMed:[30026309](#)). Contributes to the tyrosine phosphorylation of the guanine exchange factor ARHGEF2 through Src tyrosine kinase leading to NF-kappa-B activation by NOD2 (PubMed:[21887730](#)). 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:[14638696](#)). Plays a role in the inactivation of RHOA in response to NGFR signaling (PubMed:[26646181](#)).

### Cellular Location

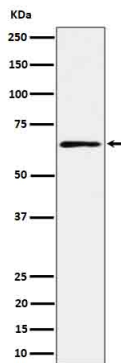
Cytoplasm. Cell membrane; Peripheral membrane protein. Endoplasmic reticulum. Note=Recruited to the cell membrane by NOD2 following stimulation by bacterial peptidoglycans

### Tissue Location

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

## Images

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