

RICK / RIP2 Antibody (clone 7F5)
Mouse Monoclonal Antibody
Catalog # ALS15997**Specification****RICK / RIP2 Antibody (clone 7F5) - Product Information**

Application	IHC, WB
Primary Accession	O43353
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	61kDa KDa

RICK / RIP2 Antibody (clone 7F5) - Additional Information**Gene ID** 8767**Other Names**

Receptor-interacting serine/threonine-protein kinase 2, 2.7.11.1, CARD-containing interleukin-1 beta-converting enzyme-associated kinase, CARD-containing IL-1 beta ICE-kinase, RIP-like-interacting CLARP kinase, Receptor-interacting protein 2, RIP-2, Tyrosine-protein kinase RIPK2, 2.7.10.2, RIPK2, CARDIAK, RICK, RIP2

Target/Specificity

Human RIPK2

Reconstitution & Storage

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions

RICK / RIP2 Antibody (clone 7F5) is for research use only and not for use in diagnostic or therapeutic procedures.

RICK / RIP2 Antibody (clone 7F5) - 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: 9575181, PubMed: 9642260, PubMed: 14638696, PubMed: 21123652, PubMed: 17054981, PubMed: 28656966). 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

[17562858](http://www.uniprot.org/citations/17562858), PubMed: [21123652](http://www.uniprot.org/citations/21123652), PubMed: [17054981](http://www.uniprot.org/citations/17054981), PubMed: [22607974](http://www.uniprot.org/citations/22607974), PubMed: [28656966](http://www.uniprot.org/citations/28656966), PubMed: [29452636](http://www.uniprot.org/citations/29452636), PubMed: [30026309](http://www.uniprot.org/citations/30026309)). 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: [22607974](http://www.uniprot.org/citations/22607974), PubMed: [29452636](http://www.uniprot.org/citations/29452636), PubMed: [28545134](http://www.uniprot.org/citations/28545134), PubMed: [30279485](http://www.uniprot.org/citations/30279485), PubMed: [30478312](http://www.uniprot.org/citations/30478312), PubMed: [30026309](http://www.uniprot.org/citations/30026309)). 'Met-1'-linked polyubiquitin chains attached to RIPK2 recruit IKBKG/NEMO, which undergoes 'Lys-63'-linked polyubiquitination in a RIPK2-dependent process (PubMed: [22607974](http://www.uniprot.org/citations/22607974), PubMed: [17562858](http://www.uniprot.org/citations/17562858), PubMed: [29452636](http://www.uniprot.org/citations/29452636), PubMed: [30026309](http://www.uniprot.org/citations/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/IKK (PubMed: [18079694](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/18079694)). The protein kinase activity is dispensable for the NOD1 and NOD2 signaling pathways (PubMed: [29452636](http://www.uniprot.org/citations/29452636), PubMed: [30026309](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/14638696)). Plays a role in the inactivation of RHOA in response to NGFR signaling (PubMed: [26646181](http://www.uniprot.org/citations/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.

RICK / RIP2 Antibody (clone 7F5) - Protocols

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

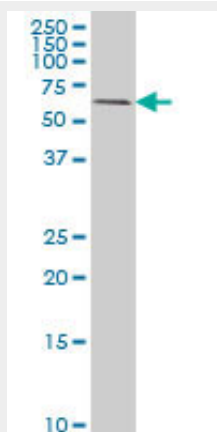
- [Western Blot](#)
- [Blocking Peptides](#)

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

RICK / RIP2 Antibody (clone 7F5) - Images



IHC with RIPK2 antibody on frozen human pancreas.



RIPK2 monoclonal antibody, clone 7F5 Western blot of RIP2 expression in HeLa.

RICK / RIP2 Antibody (clone 7F5) - Background

Serine/threonine/tyrosine kinase that plays an essential role in modulation of innate and adaptive immune responses. Upon stimulation by bacterial peptidoglycans, NOD1 and NOD2 are activated, oligomerize and recruit RIPK2 through CARD-CARD domains. Contributes to the tyrosine phosphorylation of the guanine exchange factor ARHGEF2 through Src tyrosine kinase leading to NF-kappaB activation by NOD2. Once recruited, RIPK2 autophosphorylates and undergoes 'Lys-63'-linked polyubiquitination by E3 ubiquitin ligases XIAP, BIRC2 and BIRC3. The polyubiquitinated protein mediates the recruitment of MAP3K7/TAK1 to IKBKG/NEMO and induces 'Lys-63'-linked polyubiquitination of IKBKG/NEMO and subsequent activation of IKBKB/IKKB. 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. Plays also a role during engagement of the T-cell receptor (TCR) in promoting BCL10 phosphorylation and subsequent NF-kappa-B activation.

RICK / RIP2 Antibody (clone 7F5) - References

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Thome M.,et al.Curr. Biol. 8:885-888(1998).
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).