10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RIPK2 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP13758a

Specification

RIPK2 Antibody (N-term) Blocking peptide - Product Information

Primary Accession O43353

RIPK2 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 8767

Other Names
Receptor-interacting serine/threonine-protein kinase 2, 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, RIPK2, CARDIAK, RICK, RIP2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13758a was selected from the N-term region of RIPK2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RIPK2 Antibody (N-term) Blocking peptide - 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

href="http://www.uniprot.org/citations/17562858" target="_blank">17562858, PubMed:21123652, PubMed:17054981, PubMed:22607974, PubMed:28656966, PubMed:29452636, PubMed: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, PubMed:29452636, PubMed:28545134, PubMed:30279485, PubMed:30478312, PubMed: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, PubMed:17562858, 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.

RIPK2 Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

RIPK2 Antibody (N-term) Blocking peptide - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RIPK2 Antibody (N-term) Blocking peptide - Background

This gene encodes a member of the receptor-interactingprotein (RIP) family of serine/threonine protein kinases. Theencoded protein contains a C-terminal caspase activation andrecruitment domain (CARD), and is a component of signalingcomplexes in both the innate and adaptive immune pathways. It is apotent activator of NF-kappaB and inducer of apoptosis in responseto various stimuli.

RIPK2 Antibody (N-term) Blocking peptide - References

Cirulli, E.T., et al. Eur. J. Hum. Genet. 18(7):815-820(2010)Du, X., et al. Mol. Cell. Biochem. 337 (1-2), 277-285 (2010) :Adams, S., et al. Exp. Cell Res. 316(5):728-736(2010)Zhang, F.R., et al. N. Engl. J. Med. 361(27):2609-2618(2009)Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009)