RIPK2 Antibody (N-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	RIPK2, Blocking Peptide
Full Product Name	RIPK2 Antibody (N-term) Blocking peptide
Product Gene Name	RIPK2 blocking peptide
Product Synonym Gene Name	CARDIAK; RICK; RIP2
Product Synonym 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
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody 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.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	RIPK2 peptide (MBS9220169) is used for blocking the activity of RIPK2 antibody (MBS9209297)
Molecular Weight	45,582 Da
OMIM	603455
Cellular Location	Cytoplasm.
Tissue Location	Detected in heart, brain, placenta, lung, peripheral blood leukocytes, spleen, kidney, testis, prostate, pancreas and lymph node
Related Product Information for RIPK2 blocking peptide	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.
Other Notes	Small volumes of RIPK2 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RIPK2 purchase	MBS9220169 is a blocking peptide targeting RIPK2. Also known as RIPK2 Antibody (N-term) Blocking peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RIPK2. It may not necessarily be applicable to this product.

NCBI GI #	20455217
NCBI GeneID	8767
NCBI Accession #	O43353.2

UniProt Primary Accession #	O43353
UniProt Secondary Accession #	Q6UWF0; B7Z748
UniProt Related Accession #	O43353
NCBI Official Full Name	Receptor-interacting serine/threonine-protein kinase 2
NCBI Official Synonym Full Names	receptor interacting serine/threonine kinase 2
NCBI Official Symbol	RIPK2
NCBI Official Synonym Symbols	CCK; RICK; RIP2; CARD3; GIG30; CARDIAK
UniProt Protein Name	Receptor-interacting serine/threonine-protein kinase 2
UniProt Synonym Protein Names	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 (EC:2.7.10.2)
Protein Family	Receptor-interacting serine/threonine-protein kinase
UniProt Gene Name	RIPK2
UniProt Synonym Gene Names	CARDIAK; RICK; RIP2; CARD-containing IL-1 beta ICE-kinase; RIP-2
UniProt Entry Name	RIPK2_HUMAN
NCBI Protein Information	receptor-interacting serine/threonine-protein kinase 2
NCBI Summary for RIPK2	This gene encodes a member of the receptor-interacting protein (RIP) family of serine/threonine protein kinases. The encoded protein contains a C-terminal caspase activation and recruitment domain (CARD), and is a component of signaling complexes in both the innate and adaptive immune pathways. It is a potent activator of NF-kappaB and inducer of apoptosis in response to various stimuli. [provided by RefSeq, Jul 2008]
UniProt Comments for RIPK2	RIPK2: a tyrosine kinase-like kinase of the RIPK family. Activates pro-caspase-1 and pro-caspase-8. Potentiates casp-8-mediated apoptosis. May activate NF-kappaB. Protein type: EC 2.7.10.2; Protein kinase, Ser/Thr (non-receptor); EC 2.7.11.1; Kinase, protein; Protein kinase, TKL; TKL group; RIPK family Chromosomal Location of Human Ortholog: 8q21 Cellular Component: cytoplasm; cytoskeleton; cytosol; protein complex; vesicle Molecular Function: CARD domain binding; LIM domain binding; protein binding; protein homodimerization activity; protein serine/threonine kinase activity; receptor binding; signal transducer activity Biological Process: activation of MAPK activity; activation of NF-kappaB transcription factor; adaptive immune response; I-kappaB kinase/NF-kappaB cascade; inflammatory response; innate immune response; JNK cascade; negative regulation of apoptosis; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of peptidyl-serine phosphorylation; positive regulation of peptidyl-tyrosine phosphorylation; positive regulation of protein ubiquitination; signal transduction; T cell receptor signaling pathway; toll-like receptor 2 signaling pathway
Research Articles on RIPK2	**1.** up-regulated in failing hearts
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