Datasheet for ABIN7561832

RIPK3 Protein (AA 1-486) (His tag)

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Overview

Quantity:	1 mg
Target:	RIPK3
Protein Characteristics:	AA 1-486
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RIPK3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Ripk3 Protein expressed in mammalien cells.
Sequence:	MSSVKLWPTG ASAVPLVSRE ELKKLEFVGK GGFGVVFRAH HRTWNHDVAV KIVNSKKISW EVKAMVNLRN ENVLLLLGVT EDLQWDFVSG QALVTRFMEN GSLAGLLQPE CPRPWPLLCR LLQEVVLGMC YLHSLNPPLL HRDLKPSNIL LDPELHAKLA DFGLSTFQGG SQSGSGSGSG SRDSGGTLAY LDPELLFDVN LKASKASDVY SFGILVWAVL AGREAELVDK TSLIRETVCD RQSRPPLTEL PPGSPETPGL EKLKELMIHC WGSQSENRPS FQDCEPKTNE VYNLVKDKVD AAVSEVKHYL SQHRSSGRNL SAREPSQRGT EMDCPRETMV SKMLDRLHLE EPSGPVPGKC PERQAQDTSV GPATPARTSS DPVAGTPQIP HTLPFRGTTP GPVFTETPGP HPQRNQGDGR HGTPWYPWTP PNPMTGPPAL VFNNCSEVQI GNYNSLVAPP RTTASSSAKY DQAQFGRGRG WQPFHK **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Product Details

Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	RIPK3
Alternative Name:	Ripk3 (RIPK3 Products)
Background:	Receptor-interacting serine/threonine-protein kinase 3 (EC 2.7.11.1) (RIP-like protein kinase 3) (Receptor-interacting protein 3) (RIP-3) (mRIP3),FUNCTION: Serine/threonine-protein kinase that activates necroptosis and apoptosis, two parallel forms of cell death (PubMed:27321907, PubMed:27746097, PubMed:27917412, PubMed:28607035, PubMed:32200799, PubMed:32296175). Necroptosis, a programmed cell death process in response to death-inducing TNF-alpha family members, is triggered by RIPK3 following activation by ZBP1 (PubMed:19590578, PubMed:22423968, PubMed:24012422, PubMed:24019532, PubMed:24557836, PubMed:27746097, PubMed:27819681, PubMed:27819682, PubMed:24095729, PubMed:32200799, PubMed:27321907, PubMed:32296175). Activated RIPK3 forms a necrosis-inducing complex and mediates phosphorylation of MLKL, promoting MLKL localization to the plasma membrane and execution of programmed necrosis characterized by calcium influx and plasma membrane damage (PubMed:24813849, PubMed:24813850, PubMed:27321907). In addition to TNF-induced necroptosis, necroptosis

Target Details

	can also take place in the nucleus in response to orthomyxoviruses infection: following ZBP1 activation, which senses double-stranded Z-RNA structures, nuclear RIPK3 catalyzes phosphorylation and activation of MLKL, promoting disruption of the nuclear envelope and leakage of cellular DNA into the cytosol (PubMed:32200799, PubMed:32296175). Also regulates apoptosis: apoptosis depends on RIPK1, FADD and CASP8, and is independent of MLKL and RIPK3 kinase activity (PubMed:27321907). Phosphorylates RIPK1: RIPK1 and RIPK3 undergo reciprocal auto- and trans-phosphorylation (By similarity). In some cell types, also able to restrict viral replication by promoting cell death-independent responses (PubMed:30635240). In response to flavivirus infection in neurons, promotes a cell death-independent pathway that restricts viral replication: together with ZBP1, promotes a death-independent transcriptional program that modifies the cellular metabolism via up-regulation expression of the enzyme ACOD1/IRG1 and production of the metabolite itaconate (PubMed:30635240). Itaconate inhibits the activity of succinate dehydrogenase, generating a metabolic state in neurons that suppresses replication of viral genomes (PubMed:30635240). RIPK3 binds to and enhances the activity of three metabolic enzymes: GLUL, GLUD1, and PYGL (By similarity). These metabolic enzymes may eventually stimulate the tricarboxylic acid cycle and oxidative phosphorylation, which could result in enhanced ROS production (By similarity). {ECO:0000250|UniProtKB:Q9Y572, ECO:0000269|PubMed:19590578, ECO:0000269|PubMed:22423968, ECO:0000269|PubMed:24012422, ECO:0000269|PubMed:24019532, ECO:0000269|PubMed:24095729, ECO:0000269|PubMed:24557836, ECO:0000269|PubMed:24813849, ECO:0000269|PubMed:24813850, ECO:0000269|PubMed:27321907, ECO:0000269|PubMed:27746097, ECO:0000269|PubMed:27819681, ECO:0000269|PubMed:27819682, ECO:0000269|PubMed:27917412, ECO:0000269|PubMed:28607035, ECO:0000269|PubMed:30635240, ECO:0000269|PubMed:32200799, ECO:0000269|PubMed:32296175}.
Molecular Weight:	53.3 kDa
UniProt:	Q9QZL0
Pathways:	Activation of Innate immune Response, Toll-Like Receptors Cascades

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

