Datasheet for ABIN7563883

RIPK1 Protein (AA 1-656) (His tag)

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Overview

Quantity:	1 mg
Target:	RIPK1
Protein Characteristics:	AA 1-656
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RIPK1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Ripk1 Protein expressed in mammalien cells.
Sequence:	MQPDMSLDNI KMASSDLLEK TDLDSGGFGK VSLCYHRSHG FVILKKVYTG PNRAEYNEVL LEEGKMMHRL RHSRVVKLLG IIIEEGNYSL VMEYMEKGNL MHVLKTQIDV PLSLKGRIIV EAIEGMCYLH DKGVIHKDLK PENILVDRDF HIKIADLGVA SFKTWSKLTK EKDNKQKEVS STTKKNNGGT LYYMAPEHLN DINAKPTEKS DVYSFGIVLW AIFAKKEPYE NVICTEQFVI CIKSGNRPNV EEILEYCPRE IISLMERCWQ AIPEDRPTFL GIEEEFRPFY LSHFEEYVEE DVASLKKEYP DQSPVLQRMF SLQHDCVPLP PSRSNSEQPG SLHSSQGLQM GPVEESWFSS SPEYPQDEND RSVQAKLQEE ASYHAFGIFA EKQTKPQPRQ NEAYNREEER KRRVSHDPFA QQRARENIKS AGARGHSDPS TTSRGIAVQQ LSWPATQTVW NNGLYNQHGF GTTGTGVWYP PNLSQMYSTY KTPVPETNIP GSTPTMPYFS GPVADDLIKY TIFNSSGIQI GNHNYMDVGL NSQPPNNTCK EESTSRHQAI FDNTTSLTDE HLNPIRENLG RQWKNCARKL GFTESQIDEI DHDYERDGLK EKVYQMLQKW LMREGTKGAT VGKLAQALHQ CCRIDLLNHL IRASQS **Sequence**

Product Details

	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.
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:	RIPK1
Alternative Name:	Ripk1 (RIPK1 Products)
Background:	Receptor-interacting serine/threonine-protein kinase 1 (EC 2.7.11.1) (Cell death protein RIP) (Receptor-interacting protein 1) (RIP-1),FUNCTION: Serine-threonine kinase which is a key regulator of TNF-mediated apoptosis, necroptosis and inflammatory pathways (PubMed:24813849, PubMed:24813850, PubMed:24557836, PubMed:27819681, PubMed:28842570, PubMed:31511692, PubMed:31827280, PubMed:31827281, PubMed:33397971). Exhibits kinase activity-dependent functions that regulate cell death and kinase-independent scaffold functions regulating inflammatory signaling and cell survival (PubMed:24813849, PubMed:24813850, PubMed:24557836, PubMed:28842570, PubMed:31519886, PubMed:31519887). Has kinase-independent scaffold functions: upon binding of TNF to TNFR1, RIPK1 is recruited to the TNF-R1 signaling complex (TNF-RSC also

	known as complex I) where it acts as a scaffold protein promoting cell survival, in part, by activating the canonical NF-kappa-B pathway (PubMed:31519886, PubMed:31519887). Kinase activity is essential to regulate necroptosis and apoptosis, two parallel forms of cell death: upon activation of its protein kinase activity, regulates assembly of two death-inducing complexes, namely complex IIa (RIPK1-FADD-CASP8), which drives apoptosis, and the complex IIb (RIPK1-RIPK3-MLKL), which drives necroptosis (PubMed:28842570, PubMed:27819681, PubMed:27819682, PubMed:29440439, PubMed:30988283, PubMed:31519886, PubMed:31519887). RIPK1 is required to limit CASP8-dependent TNFR1-induced apoptosis (PubMed:24813849, PubMed:24813850, PubMed:24557836). In normal conditions, RIPK1 acts as an inhibitor of RIPK3-dependent necroptosis, a process mediated by RIPK3 component of complex IIb, which catalyzes phosphorylation of MLKL upon induction by ZBP1 (PubMed:24557836, PubMed:27819681, PubMed:27819682, PubMed:31358656). Inhibits RIPK3-mediated necroptosis via FADD-mediated recruitment of CASP8, which cleaves RIPK1 and limits TNF-induced necroptosis (PubMed:31358656). Required to inhibit apoptosis and necroptosis during embryonic development: acts by preventing the interaction of TRADD with FADD thereby limiting aberrant activation of CASP8 (PubMed:30867408, PubMed:30185824). In addition to apoptosis and necroptosis, also involved in inflammatory response by promoting transcriptional production of pro-inflammatory cytokines, such as interleukin-6 (IL6) (PubMed:31827280, PubMed:31827281). Phosphorylates RIPK3: RIPK1 and RIPK3 undergo reciprocal auto- and trans-phosphorylation (By similarity). Phosphorylates DAB2IP at 'Ser-728' in a TNF-alpha-dependent manner, and thereby activates the MAP3K5-JNK apoptotic cascade (By similarity). Required for ZBP1-induced NF-kappa-B activation in response to DNA damage (PubMed:12654725, PubMed:19590578). {ECO:0000250|UniProtKB:Q13546, ECO:0000269|PubMed:12654725, ECO:0000269|PubMed:19590578, ECO:0000269|PubMed:24557836, ECO:0000269|PubMed:24813849, ECO:0000269|PubMed:24813850, ECO:0000269|PubMed:27819681, ECO:0000269|PubMed:27819682, ECO:0000269|PubMed:28842570, ECO:0000269|PubMed:29440439, ECO:0000269|PubMed:30185824, ECO:0000269|PubMed:30867408, ECO:0000269|PubMed:30988283, ECO:0000269|PubMed:31358656, ECO:0000269|PubMed:31511692, ECO:0000269|PubMed:31519886, ECO:0000269|PubMed:31519887, ECO:0000269|PubMed:31827280, ECO:0000269|PubMed:31827281, ECO:0000269|PubMed:33397971}.
Molecular Weight:	74.9 kDa
UniProt:	Q60855

Target Details

Pathways:	NF-kappaB Signaling, Apoptosis, Caspase Cascade in Apoptosis, TLR Signaling, Activation of Innate immune Response, Inositol Metabolic Process, Positive Regulation of Endopeptidase Activity, Hepatitis C, Protein targeting to Nucleus, Toll-Like Receptors Cascades, Negative Regulation of intrinsic apoptotic Signaling, SARS-CoV-2 Protein Interactome, Ubiquitin Proteasome Pathway

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.
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

