Datasheet for ABIN7554223

IRAK1 Protein (AA 1-712) (His tag)

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Overview

Quantity:	1 mg
Target:	IRAK1
Protein Characteristics:	AA 1-712
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IRAK1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat IRAK1 Protein expressed in mammalien cells.
Sequence:	MAGGPGPGEP AAPGAQHFLY EVPPWVMCRF YKVMDALEPA DWCQFAALIV RDQTELRLCE RSGQRTASVL WPWINRNARV ADLVHILTHL QLLRARDIIT AWHPPAPLPS PGTTAPRPSS IPAPAEAEAW SPRKLPSSAS TFLSPAFPGS QTHSGPELGL VPSPASLWPP PPSPAPSSTK PGPESSVSLL QGARPFPFCW PLCEISRGTH NFSEELKIGE GGFGCVYRAV MRNTVYAVKR LKENADLEWT AVKQSFLTEV EQLSRFRHPN IVDFAGYCAQ NGFYCLVYGF LPNGSLEDRL HCQTQACPPL SWPQRLDILL GTARAIQFLH QDSPSLIHGD IKSSNVLLDE RLTPKLGDFG LARFSRFAGS SPSQSSMVAR TQTVRGTLAY LPEEYIKTGR LAVDTDTFSF GVVVLETLAG QRAVKTHGAR TKYLKDLVEE EAEEAGVALR STQSTLQAGL AADAWAAPIA MQIYKKHLDP RPGPCPPELG LGLGQLACCC LHRRAKRRPP MTQVYERLEK LQAVVAGVPG HSEAASCIPP SPQENSYVSS TGRAHSGAAP WQPLAAPSGA SAQAAEQLQR GPNQPVESDE SLGGLSAALR SWHLTPSCPL DPAPLREAGC PQGDTAGESS WGSGPGSRPT AVEGLALGSS ASSSSEPPQI

Product Details

	IINPARQKMV QKLALYEDGA LDSLQLLSSS SLPGLGLEQD RQGPEESDEF QS **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.**
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:	IRAK1
Alternative Name:	IRAK1 (IRAK1 Products)
Background:	Interleukin-1 receptor-associated kinase 1 (IRAK-1) (EC 2.7.11.1),FUNCTION: Serine/threonine-protein kinase that plays a critical role in initiating innate immune response against foreign pathogens. Involved in Toll-like receptor (TLR) and IL-1R signaling pathways. Is rapidly recruited by MYD88 to the receptor-signaling complex upon TLR activation. Association with MYD88 leads to IRAK1 phosphorylation by IRAK4 and subsequent autophosphorylation and kinase activation. Phosphorylates E3 ubiquitin ligases Pellino proteins (PELI1, PELI2 and PELI3) to promote pellino-mediated polyubiquitination of IRAK1. Then, the ubiquitin-binding domain of IKBKG/NEMO binds to polyubiquitinated IRAK1 bringing together the IRAK1-MAP3K7/TAK1-TRAF6 complex and the NEMO-IKKA-IKKB complex. In turn, MAP3K7/TAK1 activates IKKs

Target Details

	(CHUK/IKKA and IKBKB/IKKB) leading to NF-kappa-B nuclear translocation and activation. Alternatively, phosphorylates TIRAP to promote its ubiquitination and subsequent degradation. Phosphorylates the interferon regulatory factor 7 (IRF7) to induce its activation and translocation to the nucleus, resulting in transcriptional activation of type I IFN genes, which drive the cell in an antiviral state. When sumoylated, translocates to the nucleus and phosphorylates STAT3. {ECO:0000269|PubMed:11397809, ECO:0000269|PubMed:12860405, ECO:0000269|PubMed:14684752, ECO:0000269|PubMed:15084582, ECO:0000269|PubMed:15465816, ECO:0000269|PubMed:15767370, ECO:0000269|PubMed:17997719, ECO:0000269|PubMed:20400509}.
Molecular Weight:	76.5 kDa
UniProt:	P51617
Pathways:	NF-kappaB Signaling, TLR Signaling, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, 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.
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