

Datasheet for ABIN7554203

IRAK4 Protein (AA 1-460) (His tag)



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Overview

Quantity:	1 mg
Target:	IRAK4
Protein Characteristics:	AA 1-460
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IRAK4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat IRAK4 Protein expressed in mammalian cells.
Sequence:	<p>MNKPITPSTY VRCLNVGLIR KLSDFIDPQE GWKKLAVAIK KPSGDDRYNQ FHIRRFEALL</p> <p>QTGKSPTSEL LFDWGTTNCT VGDLVDLLIQ NEFFAPASLL LPDAVPKTAN TLPSKEAITV</p> <p>QQKQMPFCDK DRTLMTVPQN LEQSYMPDPS SSPENKSLEV SDTRFHSFSF YELKNVTNNF</p> <p>DERPISVGGN KMGEGGFGVV YKGYVNNTTV AVKKLAAMVD ITTEELKQQF DQEIKVMAKC</p> <p>QHENVLLG FSSDGDDLCL VVYMPNGSL LDRLSCLDGT PPLSWHMRCK IAQGAANGIN</p> <p>FLHENVHHIHR DIKSANILLD EAFTAKISDF GLARASEKFA QTVMTSRIVG TTAYMAPEAL</p> <p>RGEITPKSDI YSFGVVLLEI ITGLPAVDEH REPQLLLDIK EEIEDEEKT I EDYIDKKMND</p> <p>ADSTSVEAMY SVASQCLHEK KNKRDPDIKKV QQLLQEMTAS 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.</p>

Product Details

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian 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:

IRAK4

Alternative Name:

IRAK4 ([IRAK4 Products](#))

Background:

Interleukin-1 receptor-associated kinase 4 (IRAK-4) (EC 2.7.11.1) (Renal carcinoma antigen NY-REN-64), 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 (PubMed:17878374). Is rapidly recruited by MYD88 to the receptor-signaling complex upon TLR activation to form the Myddosome together with IRAK2. Phosphorylates initially IRAK1, thus stimulating the kinase activity and intensive autophosphorylation of IRAK1. 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 (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 NCF1 and regulates NADPH oxidase activation after LPS

Target Details

stimulation suggesting a similar mechanism during microbial infections.
{ECO:0000269|PubMed:11960013, ECO:0000269|PubMed:12538665,
ECO:0000269|PubMed:15084582, ECO:0000269|PubMed:17217339,
ECO:0000269|PubMed:17337443, ECO:0000269|PubMed:17878374,
ECO:0000269|PubMed:17997719, ECO:0000269|PubMed:20400509,
ECO:0000269|PubMed:24316379}.

Molecular Weight:	51.5 kDa
UniProt:	Q9NWZ3
Pathways:	NF-kappaB Signaling , TLR Signaling , 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.
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