

Datasheet for ABIN7564712

## IRAK4 Protein (AA 1-459) (His tag)



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### Overview

Quantity:	1 mg
Target:	IRAK4
Protein Characteristics:	AA 1-459
Origin:	Mouse
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 mammalien cells.
Sequence:	<p>MNKPLTPSTY IRNLNVGILR KLSDFIDPQE GWKKLAVAIK KPSGDDRYNQ FHIRRFEALL</p> <p>QTGKSPTCEL LFDWGTNCT VGDLVDLLVQ IELFAPATLL LPDAVPQTVK SLPPREAATV</p> <p>AQTHGPCQEK DRTSVMMPMK LEHSCEPPDS SSPDNRSVES SDTRFHSFSF HELKSITNNF</p> <p>DEQPASAGGN RMGEGGFGVV YKGCVNNTIV AVKKLGAMVE ISTEELKQQF DQEIKVMATC</p> <p>QHENLVELLG FSSDSNLCL VYAYMPNGSL LDRLSCLDGT PPLSWHTRCK VAQGTANGIR</p> <p>FLHENHHIHR DIKSANILLD KDFTAKISDF GLARASARLA QTVMTSRIVG TTAYMAPEAL</p> <p>RGEITPKSDI YSFGVLLLEL ITGLAAVDEN REPQLLLDIK EEIEDEEKTI EDYTDEKMSD</p> <p>ADPASVEAMY SAASQCLHEK KNRRPDIAKV QLLQEMSA <b>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.</b></p>

## Product Details

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### 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

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### Target:

IRAK4

### Alternative Name:

Irak4 ([IRAK4 Products](#))

### Background:

Interleukin-1 receptor-associated kinase 4 (IRAK-4) (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 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 stimulation suggesting a similar mechanism during microbial infections (By

## Target Details

	similarity). {ECO:0000250}.
Molecular Weight:	50.9 kDa
UniProt:	<a href="#">Q8R4K2</a>
Pathways:	<a href="#">NF-kappaB Signaling</a> , <a href="#">TLR Signaling</a> , <a href="#">Activation of Innate immune Response</a> , <a href="#">Toll-Like Receptors Cascades</a>

## 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