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Datasheet for ABIN3095993
TLR7 Protein (AA 27-839) (His tag)

Overview

| | |
|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | TLR7 |
| Protein Characteristics: | AA 27-839 |
| Origin: | Human |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This TLR7 protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys) |

Product Details

| | |
|-----------|--|
| Sequence: | ARWFPKTLPC DVTLDVDPKNH VIVDCTDKHL TEIPGGIPTN TTNLTLTINH IPDISPASFH RLDHLVEIDF RCNCVPIPLG SKNNMCIKRL QIKPRSFSGL TYLKSLYLDG NQLLEIPQGL PPSLQLLSLE ANNIFSIRKE NLTELANIEI LYLGQNCYR NPCYVSYSIE KDAFLNLTKL KVLSLKDNNV TAVPTVLPST LTELYLYNNM IAKIQEDDFN NLNQLQILD DL SGNCPRCYNA PFPCAPCKNN SPLQIPVNAF DALTELKVL R LHSNSLQHVP PRWFKNINKL QELDLSQNFL AKEIGDAKFL HFLPSLIQLD LSFNFELQVY RASMNLSQAF SSLKSLKILR IRGYVFKELK SFNLSPLHNL QNLEVLDLGT NFIKIANLSM FKQFKRLKVI DLSVKNISPS GDSSEVGFC S NARTSVESYE PQVLEQLHYF RYDKYARSCR FKNKEASFMS VNESCXYKGQ TLDLSKNSIF FVKSSDFQHL SFLKCLNLSG NLISQTLNGS EFQPLAELRY LDFSNNRLDL LHSTAFEELH KLEVLDISSN SHYFQSEGIT HMLNFTKNLK VLQKLMMDN DISSSTSRTM ESESLRTELF RGNHLDVLWR EGDNRYLQLF KNLLKLEELD ISKNLSFLP SGVFDGMPPN LKNLSLAKNG LKSFSWKKLQ CLKNLETLDL SHNQLTTVPE RLSNCSRSLK NLILKNNQIR SLTKYFLQDA |
|-----------|--|

FQLRYLDLSS NKIQMIQKTS FPENVLNNLK MLLLHHNRFL CTCDAVWFVW WVNHTVETIP
YLATDVTCVG PGAHKGQSVI SLDLYTCELD LTN

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human TLR7 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Product Details

Grade: Crystallography grade

Target Details

Target: TLR7

Alternative Name: TLR7 ([TLR7 Products](#))

Background: Key component of innate and adaptive immunity. TLRs (Toll-like receptors) control host immune response against pathogens through recognition of molecular patterns specific to microorganisms. TLR7 is a nucleotide-sensing TLR which is activated by single-stranded RNA. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response (By similarity). {ECO:0000250, ECO:0000269|PubMed:18250417}.

Molecular Weight: 94.1 kDa Including tag.

UniProt: [Q9NYK1](#)

Pathways: [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.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Handling

Expiry Date: Unlimited (if stored properly)