

Datasheet for ABIN3092156  
**DHX58 Protein (AA 1-678) (His tag)**[Go to Product page](#)

## 1 Image

## Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | DHX58  |
| Protein Characteristics:      | AA 1-678   |
| Origin:                       | Human  |
| Source:                       | Insect Cells   |
| Protein Type:                 | Recombinant  |
| Purification tag / Conjugate: | This DHX58 protein is labelled with His tag.                         |
| Application:                  | ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS) |

## Product Details

|           |  |
|-----------|--|
| Sequence: | MELRSYQWEV IMPALEGKNI IWLPTGAGK TRAAAYVAKR HLETVDGAKV VVLVNRVHLV<br>TQHGEFRRM LDGRWTVTTL SGDMGPARGF GHLARCHDLL ICTAELLQMA LTSPEEEHV<br>ELTVFSLIV DECHHHTKDT VYNVIMSQYL ELKLQRAQPL PQVLGLTASP GTGGASKLDG<br>AINHVLQLCA NLDTWCIMSP QNCCPQLQEH SQQPCKQYNL CHRRSQDPFG DLLKKLMDQI<br>HDHLEMPELS RKFGTQMYEQ QVVKLSEAAA LAGLQEQRVY ALHLRRYNDAL LIHDTVRAV<br>DALAALQDFY HREHVTKTQI LCAERRLLAL FDDRKNELAH LATHGPENPK LEMLEKILQR<br>QFSSSNSPRG IIFTRTRQSA HSLLLWLQQQ QGLQTVDIRA QLLIGAGNSS QSTHMTQRDQ<br>QEVQKFQDG TLNLLVATSV AEEGLDIPHC NVVRYGLLT NEISMVQARG RARADQSVYA<br>FVATEGSREL KRELINEALE TLMEQAVAAV QKMDQAEYQA KIRDQQAAL TKRAAQAQQR<br>ENQRQQFPVE HVQLLCINCM VAVGHGSDLR KVEGTHHVN NPNFSNYYNV SRDPVVINKV<br>FKDWKPGGVI SCRNCGEVWG LQMIYKSVKL PVLKVRSMML ETPQGRIQAK KWSRVPFVSP<br>DFDFLQHCAE NLSDSLSD |
|-----------|--|

**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 DHX58 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.

### Grade:

Crystallography grade

## Target Details

|                   |   |
|-------------------|---|
| Target:           | DHX58   |
| Alternative Name: | DHX58 ( <a href="#">DHX58 Products</a> )  |
| Background:       | <p>Acts as a regulator of DDX58/RIG-I and IFIH1/MDA5 mediated antiviral signaling. Cannot initiate antiviral signaling as it lacks the CARD domain required for activating MAVS/IPS1-dependent signaling events. Can have both negative and positive regulatory functions related to DDX58/RIG-I and IFIH1/MDA5 signaling and this role in regulating signaling may be complex and could probably depend on characteristics of the infecting virus or target cells, or both. Its inhibitory action on DDX58/RIG-I signaling may involve the following mechanisms: competition with DDX58/RIG-I for binding to the viral RNA, binding to DDX58/RIG-I and inhibiting its dimerization and interaction with MAVS/IPS1, competing with IKBKE in its binding to MAVS/IPS1 thereby inhibiting activation of interferon regulatory factor 3 (IRF3). Its positive regulatory role may involve unwinding or stripping nucleoproteins of viral RNA thereby facilitating their recognition by DDX58/RIG-I and IFIH1/MDA5. Involved in the innate immune response to various RNA viruses and some DNA viruses such as poxviruses, and also to the bacterial pathogen <i>Listeria monocytogenes</i>. Can bind both ssRNA and dsRNA, with a higher affinity for dsRNA. Shows a preference to 5'-triphosphorylated RNA, although it can recognize RNA lacking a 5'-triphosphate. {ECO:0000269 PubMed:16116171, ECO:0000269 PubMed:17020950, ECO:0000269 PubMed:17190814, ECO:0000269 PubMed:18411269, ECO:0000269 PubMed:19208642, ECO:0000269 PubMed:19211564, ECO:0000269 PubMed:19278996, ECO:0000269 PubMed:19380577, ECO:0000269 PubMed:21187438, ECO:0000269 PubMed:21525357}.</p> |
| Molecular Weight: | 77.6 kDa Including tag.   |
| UniProt:          | <a href="#">Q96C10</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.  |
| 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. |

## Application Details

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.  |
| Expiry Date:     | Unlimited (if stored properly)   |

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process