

# Datasheet for ABIN3095065

## ROBO1 Protein (AA 26-897) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	ROBO1
Protein Characteristics:	AA 26-897
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ROBO1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

#### Product Details

Sequence:	<p>QLIPDPEDVE RGNDHGTPIP TSDNDDNSLG YTGSRLRQED FPPRIVEHPS DLIVSKGEPA</p> <p>TLNCKAEGRP TPTIEWYKGG ERVETDKDDP RSHRMLLPSP SLFFLRIVHG RKSPPDEGVY</p> <p>VCVARNYLGE AVSHNASLEV AILRDDFRQN PSDVMVAVGE PAVMECQPPR GHPEPTISWK</p> <p>KDGSPLDDKD ERITIRGGKL MITYTRKSDA GKYVCVGTNM VGERESEVAE LTVLERPSFV</p> <p>KRPSNLAVTV DDSAEFKCEA RGDVPVTVRW RKDDGELPKS RYEIRDDHTL KIRKVTAGDM</p> <p>GSYTCVAENM VGKAEASATL TVQEPHFV KPRDQVVALG RTVTFQCEAT GNPQPAIFWR</p> <p>REGSQNLLFS YQPPQSSSRF SVSQTGDLTI TNVQRSDVG YICQTLNVAG SIITKAYLEV</p> <p>TDVIADRPPP VIRQGPVNQT VAVDGTFLVLS CVATGSPVPT ILWRKDGVLV STQDSRIKQL</p> <p>ENGLVQIRYA KLGD TGRYTC IASTPSGEAT WSAYIEVQEF GVPVQPPRPT DPNLIPSAPS</p> <p>KPEVTDVSRN TVTLWQPNL NSGATPTS YI EAFSHASGS SWQTVAENVK TETSAIKGLK</p> <p>PNAIYFLVR AANAYGISDP SQISDPVKTQ DVLPTSQGV D HKQVQRELGN AVLHLHNPTV</p> <p>LSSSSIEVHW TVDQQSQYIQ GYKILYRPSG ANHGSDWL V FEVRTPAKNS VVIPDLRKG V</p>
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NYEIKARPPF NEFQGADSEI KFAKTLEEAP SAPPQGVTVS KNDGNGTAIL VSWQPPPEDT  
QNGMVQEYKV WCLGNENTRYH INKTVDGSTF SVVIPFLVPG IRYSVEVAAS TGAGSGVKSE  
PQFIQLDAHG NPVSPEDQVS LAQQISDVVK QP

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human ROB01 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.

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### 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.

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### Purity:

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

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### Sterility:

0.22 µm filtered

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## Product Details

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

Target: ROBO1

Alternative Name: ROBO1 ([ROBO1 Products](#))

Background: Receptor for SLIT1 and SLIT2 that mediates cellular responses to molecular guidance cues in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during neuronal development (PubMed:10102268, PubMed:24560577). Interaction with the intracellular domain of FLRT3 mediates axon attraction towards cells expressing NTN1 (PubMed:24560577). In axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may require the formation of a ROBO1-DCC complex (By similarity). Plays a role in the regulation of cell migration via its interaction with MYO9B, inhibits MYO9B-mediated stimulation of RHOA GTPase activity, and thereby leads to increased levels of active, GTP-bound RHOA (PubMed:26529257). May be required for lung development (By similarity). {ECO:0000250|UniProtKB:O89026, ECO:0000269|PubMed:10102268, ECO:0000269|PubMed:24560577, ECO:0000269|PubMed:26529257, ECO:0000305}.

Molecular Weight: 96.6 kDa Including tag.

UniProt: [Q9Y6N7](#)

Pathways: [Positive Regulation of Endopeptidase Activity](#)

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

## Images



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