

Datasheet for ABIN3113945

## EPH Receptor B3 Protein (EPHB3) (AA 34-998) (rho-1D4 tag)



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### Overview

Quantity:	1 mg
Target:	EPH Receptor B3 (EPHB3)
Protein Characteristics:	AA 34-998
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPH Receptor B3 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence:	<p>GCRALEETLM DTKWVTSELA WTSHPEGWE EVSGYDEAMN PIRTYQVCNV RESSQNNWLR</p> <p>TGFIWRRDVQ RYVVELKFTV RDCNSIPNIP GSCKETFNLF YYEADSDVAS ASSPFWMENP</p> <p>YVKVDTIAPD ESFSRLDAGR VNTKVRSEFGP LSKAGFYLAQ QDQGACMSLI SVRAFYKKCA</p> <p>STTAGFALFP ETLTGAEPTS LVIAPGTCIP NAVEVSVPLK LYCNGDGEWM VPVGACTCAT</p> <p>GHEPAAKESQ CRPCPPGSYK AKQGEGPCLP CPPNSRTTSP AASICTCHNN FYRADSDSAD</p> <p>SACTTVPSPP RGVISNVNET SLILEWSEPR DLGGRDDLly NVICKKCHGA GGASACSRCD</p> <p>DNVEFVPRQL GLTERRVHIS HLLAHTRYTF EVQAVNGVSG KSPLPPRYAA VNITTNQAAP</p> <p>SEVPTLRHLS SSGSSLTLW APPERPNGVI LDYEMKYFEK SEGIASVTVS QMNSVQLDGL</p> <p>RPDARYVVQV RARTVAGYGQ YSRPAEFETT SERGSGAQQL QEQLPLIVGS ATAGLVFVVA</p> <p>VVVIAIVCLR KQRHGSDEY TEKQQYIAP GMKVYIDPFT YEDPNEAVRE FAKEIDVSCV</p> <p>KIEEVIGAGE FGEVCRGRK QPGRREVFVA IKTLKVGYTE RQRRDFLSEA SIMGQFDHPN</p> <p>IIRLEGVVT SRPVMILTEF MENCALDSFL RLNDGQFTVI QLVGMLRGIA AGMKYLSEMN</p>
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YVHRDLAARN ILVNSNLVCK VSDFGLSRFL EDDPSDPTYT SSLGGKIPIR WTAPEAIAYR  
KFTSASDVWS YGIVMWEVMS YGERPYWDMS NQDVINAVEQ DYRLPPPMDC PTALHQLMLD  
CWVRDRNLRP KFSQIVNTLD KLIRNAASLK VIASAQSGMS QPLLDRTVPD YTTFTTVGDW  
LDAIKMGRYK ESFVSAGFAS FDLVAQMTAE DLLRIGVTLA GHQKKILSSI QDMRLQMNQT LPVQV

**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 EPHB3 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:

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

1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and

## Product Details

	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:	EPH Receptor B3 (EPHB3)
Alternative Name:	EPHB3 ( <a href="#">EPHB3 Products</a> )
Background:	<p>Receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Generally has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. In addition to its role in axon guidance plays also an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and the formation of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt. {ECO:0000269 PubMed:15536074}.</p>
Molecular Weight:	108.1 kDa Including tag.
UniProt:	<a href="#">P54753</a>
Pathways:	<a href="#">RTK Signaling</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
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## Application Details

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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

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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)