



[Go to Product page](#)

Datasheet for ABIN3136403

EPH Receptor B1 Protein (EPHB1) (AA 18-984) (rho-1D4 tag)

Overview

Quantity:	1 mg
Target:	EPH Receptor B1 (EPHB1)
Protein Characteristics:	AA 18-984
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPH Receptor B1 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence: MEETLMDTRT ATAELGWTAN PASGWEEVSG YDENLNTIRT YQVCNVFEPN QNNWLLTTFI
 NRRGAHRIYT EMRFTVRDCS SLPNVPGSCK ETFNLYYET DSVIATKKSA FWSEAPYLKV
 DTIAADESFS QVDFGGRLMK VNTEVRSFGP LTRNGFYLAQ QDYGACMSLL SVRVFFKKCP
 SIVQNFAVFP ETMTGAESTS LVIARGTCIP NAAEVDVPIK LYCNGDGEWM VPIGRCTCKP
 GYEPENSVAC KACPAGTFKA SQEAEGCSHC PSNSRSPSEA SPICTCRTGY YRADFDPEEV
 ACTSVPSGPR NVISIVNETS IILEWHPPRE TGGRDDVTYN IICKKCRADR RSCSRCDNDV
 EFVPRQLGLT ECRVSISSLW AHTPYTFDIQ AINGVSSKSP FPPQHVSUNI TTNQAAPSTV
 PIMHQVSATM RSITLSWPQP EQPNGILDY EIRYYEKEHN EFNSSMARSQ TNTARIDGLR
 PGMVYVQVR ARTVAGYGKF SGKMCQTLT DDDYKSELRE QLPLIAGSAA AGVVFVSLV
 AISIVCSRKR AYSKEAAYSD KLQHYSTGRG SPGMKIYIDP FTYEDPNEAV REFAKEIDVS
 FVKIEEVIGA GEFGEVYKGR LKLPKREIY VAIKTLKAGY SEKQRRDFLS EASIMGQFDH
 PNIIRLEGV TKS RPVMIIT EFMENGALDS FLRQNDGQFT VIQLVGMLRG IAAGMKYLSE

MNYVHRDLAA RNILVNSNLV CKVSDFGLSR YLQDDTSDPT YTSSLGGKIP VRWTAPEAIA
YRKFTSASDV WSYGIVMWEV MSFGERPYWD MSNQDVINAI EQDYRLPPPM DCPAALHQLM
LDCWQKDRNS RPRFAEIVNT LDKMIRNPAS LKT VATITAV PSQPLLDRSI PDFTAFTTVD
DWLSAIKMVQ YRDSFLTAGF TSLQLVTQMT SEDLLRIGVT LAGHQKKILS SIHSMRVQMN
QSPSVMA

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.
- Mouse Ephb1 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:

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

1. Membrane proteins are fractionated 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

Product Details

through size exclusion chromatograph. 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: EPH Receptor B1 (EPHB1)

Alternative Name: Ephb1 ([EPHB1 Products](#))

Background: 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. Cognate/functional ephrin ligands for this receptor include EFNB1, EFNB2 and EFNB3. During nervous system development, regulates retinal axon guidance redirecting ipsilaterally ventrotemporal retinal ganglion cells axons at the optic chiasm midline. This probably requires repulsive interaction with EFNB2. In the adult nervous system together with EFNB3, regulates chemotaxis, proliferation and polarity of the hippocampus neural progenitors. 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 synapse formation. May also regulate angiogenesis. More generally, may play a role in targeted cell migration and adhesion. Upon activation by EFNB1 and probably other ephrin-B ligands activates the MAPK/ERK and the JNK signaling cascades to regulate cell migration and adhesion respectively.

{[ECO:0000269|PubMed:12971893](#), [ECO:0000269|PubMed:14691139](#),
[ECO:0000269|PubMed:18057206](#), [ECO:0000269|PubMed:18524895](#)}.

Molecular Weight: 109.3 kDa Including tag.

UniProt: [Q8CBF3](#)

Pathways: [RTK Signaling](#)

Application Details

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

Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: Protein has not been tested for activity yet. 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)