

Datasheet for ABIN3113951
EPH Receptor B4 Protein (EPHB4) (AA 16-987) (rho-1D4 tag)



[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	EPH Receptor B4 (EPHB4)
Protein Characteristics:	AA 16-987
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPH Receptor B4 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	LEETLLNTKL ETADLKWVTF PQVDGQWEEL SGLDEEQHSV RTYEVCDVQR APGQAHWLR T GWVPRRGAVH VYATLRFTML ECLSLPRAGR SCKETFTVFY YESDADTATA LTPAWMENPY IKVDTVAAEH LTRKRPGAEA TGKVNKTLR LGPLSKAGFY LAFQDQGACM ALLSLHLFYK KCAQLTVNLT RFPETVPREL VVPVAGSCVV DAVPAPGPSP SLYCREDGQW AEQPVTGCSC APGFEEAEGN TKCRACAQGT FKPLSGEGSC QPCPANSHSN TIGSAVCQCR VGYFRARTDP RGAPCTTPPS APRSVVSR LN GSSLHLEWSA PLESGGREDL TYALRCRECR PGGSCAPCGG DLTFDPGPRD LVEPWVVVRG LRPDFTYTFE VTALNGVSSL ATGPVPFEPV NVTTDREVPP AVSDIRVTRS SPSSLSLAWA VPRAPSGAVL DYEVKYHEKG AEGPSSVRFL KTSENRAELR GLKRGASYLV QVRARSEAGY GPFQGEHHSQ TQLDESEGWR EQLALIAGTA VVGWLVLVV IVVAVLCLRK QSNGREAEYS DKHGQYLIGH GTKVYIDPFT YEDPNEAVRE FAKEIDVSYV KIEEVIGAGE FGEVCRGR LK APGKKESCVA IKTLKGGYTE RQRREFLSEA SIMGQFEHPN IIRLEGVVTN SMPVMILTEF MENGALDSFL RLNDGQFTVI QLVGMLRGIA SGMRYLAEMS
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YVHRDLAARN ILVNSNLVCK VSDFGLSRFL EENSSDPTYT SSLGGKIPIR WTAPEAIAFR
KFTSASDAWS YGIVMWEVMS FGERPYWDMS NQDVINAIEQ DYRLPPPPDC PTLHQLMLD
CWQKDRNARP RFPQVVSALD KMIRNPASLK IVARENGGAS HPLLDQRQPH YSAFGSVGEW
LRAIKMGRIE ESFAAAGFGS FELVSQISAE DLLRIGVTLA GHQKKILASV QHMKSQAKPG
TPGGTGGPAP QY

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 EPHB4 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 B4 (EPHB4)
Alternative Name:	EPHB4 (EPHB4 Products)
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. Together with its cognate ligand/functional ligand EFNB2 plays a central role in heart morphogenesis and angiogenesis through regulation of cell adhesion and cell migration. EPHB4-mediated forward signaling controls cellular repulsion and segregation form EFNB2-expressing cells. Plays also a role in postnatal blood vessel remodeling, morphogenesis and permeability and is thus important in the context of tumor angiogenesis.</p> <p>{ECO:0000269 PubMed:12734395, ECO:0000269 PubMed:16424904}.</p>
Molecular Weight:	107.8 kDa Including tag.
UniProt:	P54760
Pathways:	RTK Signaling

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

Application Details

	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)