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Datasheet for ABIN3134500

EPH Receptor B2 Protein (EPHB2) (AA 19-543) (His tag)

Overview

Quantity:	1 mg
Target:	EPH Receptor B2 (EPHB2)
Protein Characteristics:	AA 19-543
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPH Receptor B2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence: VEETLMDSTT ATAELGWMVH PPSGWEEVSG YDENMNTIRT YQVCNVFESS QNNWLRTKFI
RRRGARIHV EMKFVSRDCS SIPSVPGSCK ETFNLYYYEA DFDLATKTFP NWMENPWVKV
DTIAADESFS QVDLGGVRMK INTEVRSFGP VSRNGFYLAQ QDYGGCMSLI AVRVFYRKCP
RIIQNGAIFQ ETLSGAESTS LVAARGSCIA NAAEVDVPIK LYCNGDGEWL VPIGRMCKA
GFEAVENGTV CRGCPSTGTFK ANQGDEACTH CPINSRTTSE GATNCVCRNG YYRADLDPLD
MPCTTIPSAP QAVISSVNET SLMLEWTPPR DSGGREDLVY NIICKSCGSG RGACTRCGDN
VQYAPRQLGL TEPRIYISDL LAHTQYTFEI QAVNGVTDQS PFSPQFASVN ITTNQAAPSA
VSIHQVSRT VDSITLSWSQ PDQPNGVILD YELQYYEKEL SEYNATAIKS PTNTVTVQGL
KAGAIYVFQV RARTVAGYGR YSGKMYFQTM TEAEYQTSIK EKLPL

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

Product Details

Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Mouse Ephb2 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). <p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>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.</p> <p>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.</p>
Purification:	<p>Two step purification of proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none">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: EPH Receptor B2 (EPHB2)

Alternative Name: Ephb2 ([EPHB2 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. Functions in axon guidance during development. Involved in the guidance of commissural axons, that form a major interhemispheric connection between the 2 temporal lobes of the cerebral cortex. Also involved in guidance of contralateral inner ear efferent growth cones at the midline and of retinal ganglion cell axons to the optic disk. In addition to axon guidance, also regulates dendritic spines development and maturation and stimulates the formation of excitatory synapses. Upon activation by EFNB1, abolishes the ARHGEF15-mediated negative regulation on excitatory synapse formation. Controls other aspects of development including angiogenesis, palate development and in inner ear development through regulation of endolymph production. Forward and reverse signaling through the EFNB2/EPHB2 complex regulate movement and adhesion of cells that tubularize the urethra and septate the cloaca. May function as a tumor suppressor. {ECO:0000269|PubMed:10839360, ECO:0000269|PubMed:14691139, ECO:0000269|PubMed:15223334, ECO:0000269|PubMed:21029865, ECO:0000269|PubMed:8689685, ECO:0000269|PubMed:8947026, ECO:0000269|PubMed:9990854}.

Molecular Weight: 59.1 kDa Including tag.

UniProt: [P54763](#)

Pathways: [RTK Signaling](#), [Regulation of long-term Neuronal Synaptic Plasticity](#), [S100 Proteins](#)

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: 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)