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Datasheet for ABIN3134805

EPH Receptor A2 Protein (EPHA2) (AA 26-977) (rho-1D4 tag)

Overview

Quantity:	1 mg
Target:	EPH Receptor A2 (EPHA2)
Protein Characteristics:	AA 26-977
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPH Receptor A2 protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys)

Product Details

Sequence: KEVLLDFAA MKGELGWLTH PYGKGWDLMQ NIMDDMPIYM YSVCNVVSGD QDNWLR TNWV
YREEAERIFI ELKFTVRDCN SFPGGASSCK ETFNLYAES DVDYGTNFQK RQFTKIDTIA
PDEITVSSDF EARNVKNLVE ERMVGPLTRK GFYLAQDIG ACVALLSVRV YYKKCEPEMLQ
SLARFPETIA VAVSDTQPLA TVAGTCVDHA VVPYGGEGPL MHCTVDGEWL VPIGQCLCQE
GYEKVEDACR ACSPGFFKSE ASESPCLECP EHTLPSTEGA TSCQCEEGYF RAPEDPLSMS
CTRPPSAPNY LTAIGMGAKV ELRWTPAKDT GGRQDIVYSV TCEQCWPESG ECGPCEASVR
YSEPPHALTR TSVTVSDLEP HMNYTFAVEA RNVGSLVTS RSFRTASVSI NQTEPPKVRL
EDRSTTSLSV TWSIPVSQQS RVWKYEVTYR KKGDANSYNV RRETEGFSVTL DDLAPDTTYL
VQVQALTQEG QGAGSKVHEF QTLSTEGSAN MAVIGGVAVG VVLLLVLAVG GLFIHRRRRN
LRARQSSDEV RFSKSEQLKP LKTYVDPHTY EDPNQAVLKF TTEIHPSCVA RQKVIGAGEF
GEVYKGT LKA SSGKKEIPVA IKTLKAGYTE KQRVDFLSEA SIMGQFSHHN IIRLEGV VSK
YKPMMIITEY MENGALDKFL REKDGEFSVL QLVGMLRGIA SGMKYLANMN YVHRDLAARN

ILVNSNLVCK VSDFGLSRVL EDDPEATYTT SGGKIPIRWT APEAISYRKF TSASDVWSYG
IVMWEVMTYG ERPYWELSNH EVMKAINDFG RLPTPMDCPS AIYQLMMQCW QQERSRRPKF
ADIVSILDKL IRAPDSLKTL ADFDPRVSIR LPSTSGSEGV PFRTVSEWLE SIKMQQYTEH
FMVAGYTAIE KVVQMSNEDI KRIGVRLPGH QKRIAYSLLG LKDQVNTVGI PI

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 Epha2 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 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 A2 (EPHA2)

Alternative Name: EphA2 ([EPHA2 Products](#))

Background: Receptor tyrosine kinase which binds promiscuously membrane-bound ephrin-A 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. Activated by the ligand ephrin-A1/EFNA1 regulates migration, integrin-mediated adhesion, proliferation and differentiation of cells. Regulates cell adhesion and differentiation through DSG1/desmoglein-1 and inhibition of the ERK1/ERK2 signaling pathway. May also participate in UV radiation-induced apoptosis and have a ligand-independent stimulatory effect on chemotactic cell migration. During development, may function in distinctive aspects of pattern formation and subsequently in development of several fetal tissues. Involved for instance in angiogenesis, in early hindbrain development and epithelial proliferation and branching morphogenesis during mammary gland development. Engaged by the ligand ephrin-A5/EFNA5 may regulate lens fiber cells shape and interactions and be important for lens transparency development and maintenance. With ephrin-A2/EFNA2 may play a role in bone remodeling through regulation of osteoclastogenesis and osteoblastogenesis.

{ECO:0000269|PubMed:15054110, ECO:0000269|PubMed:16782872, ECO:0000269|PubMed:16849550, ECO:0000269|PubMed:18387945, ECO:0000269|PubMed:18948590, ECO:0000269|PubMed:19299512, ECO:0000269|PubMed:19321667}.

Molecular Weight: 107.5 kDa Including tag.

UniProt: [Q03145](#)

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: 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)
