

Datasheet for ABIN3114983

EPH Receptor A7 Protein (EPHA7) (AA 28-998) (rho-1D4 tag)



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Overview

Quantity:	1 mg
Target:	EPH Receptor A7 (EPHA7)
Protein Characteristics:	AA 28-998
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EPH Receptor A7 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	<p>QAAKEVLLLD SKAQQTELEW ISSPPNGWEE ISGLDENYTP IRTYQVCQVM EPNQNNWLRT</p> <p>NWISKGNAQR IFVELKFTLR DCNSLPGVLG TCKETFNLYY YETDYDTGRN IRENLYVKID</p> <p>TIAADESFTQ GDLGERKMKL NTEVREIGPL SKKGFYLAQ DVGACIALVS VKVYKCKWS</p> <p>IENLAIFPD TVTGSEFSSL VEVGTCVSS AEEEEANAPR MHCSAEGEWL VPIGKCICKA</p> <p>GYQQKGDTC PCGRGFYKSS SQDLQCSRCP THSFSDKEGS SRCECEDGYY RAPSDPPYVA</p> <p>CTRPPSAPQN LIFNINQTTV SLEWSPPADN GGRNDVTYRI LCKRCSWEQG ECVPCGSNIG</p> <p>YMPQQTGLED NYVTVMDLLA HANYTFEVEA VNGVSDLSRS QRLFAAVSIT TGQAAPSQVS</p> <p>GVMKERVLR SVELSWQEPE HPNGVITEYE IKYYEKDQRE RTYSTVKTGS TSASINNLKP</p> <p>GTVYVFQIRA FTAAGYGNYS PRLDVATLEE ATGKMFEATA VSSEQNPVII IAVVAVAGTI</p> <p>ILVFMVFGFI IGRRHCGYSK ADQEGDEELY FHFKFPGTKT YIDPETYEDP NRAVHQFAKE</p> <p>LDASCIKIER VIGAGEFGEV CSGRLKLP GK RDVAVAIKTL KVGYTEKQRR DFLCEASIMG</p> <p>QFDHPNVVHL EGVVTRGKPV MIVIEFMENG ALDAFLRKHD GQFTVIQLVG MLRGIAAGMR</p>
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YLADMGYVHR DLAARNILVN SNLVCKVSDF GLSRVIEDDP EAVYTTTGGK IPVRWTAPEA
IQYRKFTSAS DVWSYGIVMW EVMSYGERPY WDMSNQDVIK AIEEGYRLPA PMDCPAGLHQ
LMLDCWQKER AERPKFEQIV GILDKMIRNP NSLKTPLGTC SRPISPLLDQ NTPDFTTFCS
VGEWLQAIKM ERYKDNFTAA GYNSLESVAR MTIEDVMSLG ITLVGHQKKI MSSIQTMRAQ
MLHLHGTGIQ V

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

Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human EPHA7 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>
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Purification:	<p>Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none">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
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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 A7 (EPHA7)
Alternative Name:	EPHA7 (EPHA7 Products)
Background:	<p>Receptor tyrosine kinase which binds promiscuously GPI-anchored 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. Among GPI-anchored ephrin-A ligands, EFNA5 is a cognate/functional ligand for EPHA7 and their interaction regulates brain development modulating cell-cell adhesion and repulsion. Has a repellent activity on axons and is for instance involved in the guidance of corticothalamic axons and in the proper topographic mapping of retinal axons to the colliculus. May also regulate brain development through a caspase(CASP3)-dependent proapoptotic activity. Forward signaling may result in activation of components of the ERK signaling pathway including MAP2K1, MAP2K2, MAPK1 AND MAPK3 which are phosphorylated upon activation of EPHA7. {ECO:0000269 PubMed:17726105}.</p>
Molecular Weight:	110.0 kDa Including tag.
UniProt:	Q15375
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

Application Details

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)