Datasheet for ABIN3135033

TRKA Protein (AA 34-799) (rho-1D4 tag)

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Overview

Quantity:	1 mg
Target:	TRKA (NTRK1)
Protein Characteristics:	AA 34-799
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TRKA protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:	ASCREVCCPV GPSGLRCTRA GSLDTLRGLR GAGNLTELYV ENQQHLQRLE FEDLQGLGEL RSLTIVKSGL RFVAPDAFRF TPRLSHLNLS SNALESLSWK TVQGLSLQDL TLSGNPLHCS CALFWLQRWE QEGLCGVHTQ TLHDSGPGDQ FLPLGHNTSC GVPTVKIQMP NDSVEVGDDV FLQCQVEGLA LQQADWILTE LEGAATVKKF GDLPSLGLIL VNVTSDLNKK NVTCWAENDV GRAEVSVQVS VSFPASVHLG LAVEQHHWCI PFSVDGQPAP SLRWLFNGSV LNETSFIFTQ FLESALTNET MRHGCLRLNQ PTHVNNGNYT LLAANPYGQA AASVMAAFMD NPFEFNPEDP IPVSFSPVDG NSTSRDPVEK KDETPFGVSV AVGLAVSAAL FLSALLLVLN KCGQRSKFGI NRPAVLAPED GLAMSLHFMT LGGSSLSPTE GKGSGLQGHI MENPQYFSDT CVHHIKRQDI ILKWELGEGA FGKVFLAECY NLLNDQDKML VAVKALKEAS ENARQDFQRE AELLTMLQHQ HIVRFFGVCT EGGPLLMVFE YMRHGDLNRF LRSHGPDAKL LAGGEDVAPG PLGLGQLLAV ASQVAAGMVY LASLHFVHRD LATRNCLVGQ GLVVKIGDFG MSRDIYSTDY YRVGGRTMLP IRWMPPESIL YRKFSTESDV WSFGVVLWEI FTYGKQPWYQ LSNTEAIECI TQGRELERPR

Product Details

	ACPPDVYAIM RGCWQREPQQ RLSMKDVHAR LQALAQAPPS YLDVLG **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 Ntrk1 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 receival 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 Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered

Product Details

Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	TRKA (NTRK1)
Alternative Name:	Ntrk1 (NTRK1 Products)
Background:	Receptor tyrosine kinase involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. High affinity receptor for NGF which is its primary ligand, it can also bind and be activated by NTF3/neurotrophin-3. However, NTF3 only supports axonal extension through NTRK1 but has no effect on neuron survival. Upon dimeric NGF ligand-binding, undergoes homodimerization, autophosphorylation and activation. Recruits, phosphorylates and/or activates several downstream effectors including SHC1, FRS2, SH2B1, SH2B2 and PLCG1 that regulate distinct overlapping signaling cascades driving cell survival and differentiation. Through SHC1 and FRS2 activates a GRB2-Ras-MAPK cascade that regulates cell differentiation and survival. Through PLCG1 controls NF-Kappa-B activation and the transcription of genes involved in cell survival. Through SHC1 and SH2B1 controls a Ras-PI3 kinase-AKT1 signaling cascade that is also regulating survival. In absence of ligand and activation, may promote cell death, making the survival of neurons dependent on trophic factors. {ECO:0000269|PubMed:21816277, ECO:0000269|PubMed:8145823, ECO:0000269|PubMed:8815902}.
Molecular Weight:	85.5 kDa Including tag.
UniProt:	Q3UFB7
Pathways:	RTK Signaling, Neurotrophin Signaling Pathway, cAMP Metabolic Process

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 gurantee 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

Application Details

	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)