

Datasheet for ABIN3137417

Nephrin Protein (AA 36-1256) (rho-1D4 tag)**1** Image[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	Nephrin (NPHS1)
Protein Characteristics:	AA 36-1256
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Nephrin protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	AQSPVPTSAP RGFWALSENL TVVEGSTVKL WCGVRAPGSV VQWAKDGLLL GPNPKIPGFP RYSLEGDSAK GEFHLLIEAC DLSDDAEYEC QVGRSELGPE LVSPSVILSI LVSPKVLQLT PEAGSTVTWV AGQEYVVTVCV SGDAKPAPDI IFIQGGRTVE DVSSSVNEGS EEKLFTEAE ARVTPQSSDN GQLLVCEGSN PALATPIKAS FTMNILFPPG PPVIDWPGLN EGHVRAGENL ELPCIARGGN PPATLQWLKN GKPVSIAWGT EHAQAVAHSV LVMTVRPEDH GARLSCQSYN SVSAETQERS ITLQVTFPPS AVTILGSTSQ SENKNVTLC LTKSSRPVL LRWWLGGRQL LPTDETVMVG LHGGHISMSN LTLLVKREDN GLSLTCEAFS DAFSKETFKK SLTLNVKYPA QKLWIEGPPE GQSIRTGTRV RLVCLAIGGN PEPSTWLKD SRPVNDPRQS QEPRRVQLGS VEKSGSTFSR ELVLIIGPPD NLAKFCKAG QLSASTQLVV QFPPTNLTL ANSSALRPGD ALNLTCVSIS SNPPVNLSLD KEGERLDDVA AKPQSAPFKG SAASRSVFLR VSSRDHGHVRV TCRAHSEALR ETVSSFYRLN VLYPPEFLGE QVRAVTVEQ GQALLPVSVS ANPAPEAFNW TFRGYRLSPA GGPRHRILSG GALQLWNVTR ADDGFYQLHC QNSEGTAEAL LKLDVHYAPT
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IRALKDPTEV NVGGSVDIVC TVDANPILPE MFSWERLGED EEELNLDDME KMSKGSTGRL
RIRQAKLSQA GAYQCIVDNG VAPAARGLVR LVVRFAPQVD HPTPLTKVAA AGDSTSSATL
HCRARGVPNI DFTWTKNGVP LDLQDPYTE HKYHQGVVHS SLLTIANVSA AQDYALFKCT
ATNALGSDHT NIQLVSISRP DPPLGLKVVS VSPHSVGLEW KPGFDGGLPQ RFQIRYEAL
SPGFLYMDVL PAQATTFTLT GLKPSTRYRI WLLASNALGD SGLTDKGIQV SITTPGLDQA
PEDTDQPLPT EQPPGPPRLP LLPVLFAVGG LLLLSNASCV GLLWRRRLR RLAEIESEKT
EAGSEEDRIR NEYEESQWTG DRDTRSSTVS TAEVDPHYYS MRDFSPQLPP TLEEVSYRQA
FTGIEDEDMA FPGHLYDEVE RVYGPPGVWG PLYDEVQMDP YDLRWPEVKY EDPRGIYDQV
AADMDAGEPG SLPFELRGHL V

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 Nphs1 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

Product Details

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

Target Details

Target:	Nephrin (NPHS1)
Alternative Name:	Nphs1 (NPHS1 Products)
Background:	Seems to play a role in the development or function of the kidney glomerular filtration barrier. Regulates glomerular vascular permeability. May anchor the podocyte slit diaphragm to the actin cytoskeleton. Plays a role in skeletal muscle formation through regulation of myoblast fusion. {ECO:0000269 PubMed:11136707, ECO:0000269 PubMed:12039968, ECO:0000269 PubMed:19470472}.
Molecular Weight:	134.0 kDa Including tag.
UniProt:	Q9QZS7
Pathways:	Regulation of Actin Filament Polymerization , Skeletal Muscle Fiber Development

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.

Application Details

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)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process