

Datasheet for ABIN3110376

**Nephrin Protein (AA 23-1241) (rho-1D4 tag)**[Go to Product page](#)

## Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | Nephrin (NPHS1)  |
| Protein Characteristics:      | AA 23-1241   |
| Origin:                       | Human  |
| 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: | QLAIPASVPR GFWALPENLT VVEGASVELR CGVSTPGSAV QWAKDGLLLG PDPRIPGFPR<br>YRLEGDPARG EFHLHIEACD LSDDAEYECQ VGRSEMGPEL VSPRVLSIL VPPKLLLLTP<br>EAGTMVTWVA GQEYVVNCVS GDAKPAPDIT ILLSGQTISD ISANVNEGSQ QKLFTVEATA<br>RVTPRSSDNR QLLVCEASSP ALEAPIKASF TVNVLFPPGP PVIEWPGLDE GHVRAGQSLE<br>LPCVARGGNP LATLQWLKNG QPVSTAWGTE HTQAVARSVL VMTVRPEDHG AQLSCEAHNS<br>VSAGTQEHGI TLQVTFPPSA IIILGSASQT ENKNVTLSKV SKSSRPRVLL RWWLGWRQLL<br>PMEETVMDGL HGGHISMSNL TFLARREDNG LTLTCEAFSE AFTKETFKKS LILNVKYPQAQ<br>KLWIEGPPEG QKLRAGTRVR LVCLAIGGNP EPSLMWYKDS RTVTESRLPQ ESRRVHLGSV<br>EKSGSTFSRE LVLVTGPSDN QAKFTCKAGQ LSASTQLAVQ FPPTNVTILA NASALRPGDA<br>LNLTCVSVSS NPPVNLSDWK EGERLEGVAA PRRAPFKGS AAARSVLLQV SSRDHGQRVT<br>CRAHSAELRE TVSSFYRLNV LYRPEFLGEQ VLVVTAVEQG EALLPVSUSA NPAPEAFNWT<br>FRGYRLSPAG GPRHRILSSG ALHLWNVTRA DDGLYQLHCQ NSEGTAEARL RLDVHYAPTI |
|-----------|---|

RALQDPTEVN VGGSVDIVCT VDANPILPGM FNWERLGEDE EDQSLDDMEK ISRGPTGRLR  
IHHAKLAQAG AYQCIVDNGV APPARRLLRL VVRFAPQVEH PTPLTKVAAA GDSTSSATLH  
CRARGVPNIV FTWTKNGVPL DLQDPRYTEH TYHQGGVHSS LLTIANVSAA QDYALFTCTA  
TNALGSDQTN IQLVSISRPD PPSGLKVVSL TPHSVGLEWK PGFDGGLPQR FCIRYEALGT  
PGFHYVDVVP PQATTFTLTG LQPSTRYRVW LLASNALGDS GLADKGTQLP ITTPGLHQPS  
GEPEDQLPTE PPSGPSGLPL LPVLFALGGL LLLSNASCVG GVLWQRRLRR LAEGISEKTE  
AGSEEDRVRN EYEESQWTGE RDTQSSTVST TEAEPYYRSL RDFSPQLPPT QEEVSYSRGF  
TGEDEDMAFP GHLYDEVERT YPPSGAWGPL YDEVQMGPWD LHWPEPTYQD PRGIYDQVAG  
DLDTLEPDSL PFELRGHLV

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human NPFS1 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.

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### 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

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- different detergents (detergent screen). Samples are analyzed by Western blot.
- 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.
  - 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

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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 (By similarity). {ECO:0000250|UniProtKB:Q9QZS7, ECO:0000250|UniProtKB:Q9R044}.

Molecular Weight: 133.7 kDa Including tag.

UniProt: [O60500](#)

Pathways: [Regulation of Actin Filament Polymerization, Skeletal Muscle Fiber Development](#)

## Application Details

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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 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

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|                  |  |
|------------------|--|
| 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)   |