Datasheet for ABIN3134553

NPHP4 Protein (AA 1-1425) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	NPHP4
Protein Characteristics:	AA 1-1425
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NPHP4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MGDWHRAFTQ NTLVPPHPQR ARQLGKESTA FQCILKWLDG PLIKQGILDM LSELECHLRV TLFDVTYKHF FGRTWKTTVK PTNQPSKQPP RITFNEPLYF HTTLSHPSIV AVVEVVTEGR KRDGTLQLLS CGFGILRIFG NKPESPTSAA QDKRLRLYHG TPRALLHPLL QDPIEQNKFM RLMENCSLQY TLKPHPPLEP AFHLLPENLL VSGFQQIPGL LPPHGDTGDA LRKPRFQKPT TWHLDDLFFT LYPSLEKFEE ELVQLLISDR EGVGLLDSGT LEVLERRLHV CVHNGLGFVQ RPQVVVLVPE MDVALTRSAS FSRKISASSK NSSGNQALVL RSHLRLPEMV SHPAFAIVFQ LEYVFNSPSG ADGGASSPTS ISSVACMHMV RWAVWNPDLE VGPGKVTLPL QGGVQQNPSR CLVYKVPSAS MSSEEVKQVE SGTIQFQFSL SSDGPTEHAN GPRVGRRSSR KMPASPSGTP APAARDLAAT QDSPVGPGLS LSQLTASPLS PALQSSSKPP LQPPDSSQSP EGPQLQAESV LESRVSHLEA DLSQPASLQG TPAVEHLQEL PFTPLHAPIV VGAQTRSSRS QLSRAAMVLL QSSGFPEILD ASQQPVEAVN PIDPVRFNPQ KEESDCLRGN EIVLQFLAFS RAAQDCPGTP WPQTVYFTFQ FYRFPPETTP RLQLVKLDGT GKSGSGSLSH ILVPINKDGS FDAGSPGLQL

RYMVDPGFLK PGEQRWFAHY LAAQTLQVDV WDGDSLLLIG SAGVQMKHLL RQGRPAVQVS HELEVVATEY EQEMMAVSGD VAGFGSVKPI GVHTVVKGRL HLTLANVGHA CEPRARGSNL LPPSRSRVIS NDGASFFSGG SLLIPGGPKR KRVVQAQRLA DVDSELAAML LTHTRAGQGP QAAGQEADAV HKRKLERMRL VRLQEAGGDS DSRRISLLAQ HSVRAQHSRD LQVIDAYRER TKAESIAGVL SQAITTHHTL YATLGTAEFF EFALKNPHNT QHTVAIEIDS PELSIILDSQ EWRYFKEATG LHTPLEEDMF HLRGSLAPQL YLRPRETAHI PLKFQSFSVG PLAPTQAPAE VITEKDAESG PLWKCSAMPT KHAKVLFRVE TGQLIAVLCL TVEPQPHVVD QVFRFYHPEL TFLKKAIRLP PWHTLPGAPV GMPGEDPPVH VRCSDPNVIC EAQNVGPGEP RDVFLKVASG PSPEIKDFFV VIYADRWLAV PVQTWQVCLH SLQRVDVSCV AGQLTRLSLV LRGTQTVRKV RAFTSHPQEL KTDPAGVFVL PPHGVQDLHV GVRPRRAGSR FVHLNLVDID YHQLVASWLV CLSCRQPLIS KAFEITMAAG DEKGTNKRIT YTNPYPSRRT YRLHSDRPEL LRFKEDSFQV AGGETYTIGL RFLPSGSAGQ EEILIYINDH EDKNEETFCV KVLYQ

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional

Product Details

components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	NPHP4
Alternative Name:	Nphp4 (NPHP4 Products)
Background:	Nephrocystin-4 (Nephroretinin),FUNCTION: Involved in the organization of apical junctions, the function is proposed to implicate a NPHP1-4-8 module. Does not seem to be strictly required for ciliogenesis (By similarity). Required for building functional cilia. Involved in the organization of the subapical actin network in multiciliated epithelial cells. Seems to recruit INT to basal bodies of motile cilia which subsequently interacts with actin-modifying proteins such as DAAM1 (By similarity). In cooperation with INVS may down-regulate the canonical Wnt pathway and promote the Wnt-PCP pathway by regulating expression and subcellular location of disheveled proteins. Stabilizes protein levels of JADE1 and promotes its translocation to the nucleus leading to cooperative inhibition of canonical Wnt signaling (By similarity). Acts as negative regulator of the hippo pathway by association with LATS1 and modifying LATS1-

Target Details

	dependent phosphorylation and localization of WWTR1/TAZ (By similarity). {ECO:0000250|UniProtKB:B0DOB4, ECO:0000250|UniProtKB:O75161}.
Molecular Weight:	157.3 kDa
UniProt:	P59240

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:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

