

Datasheet for ABIN7555503

## INPPL1 Protein (AA 1-1258) (His tag)



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### Overview

Quantity:	1 mg
Target:	INPPL1
Protein Characteristics:	AA 1-1258
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This INPPL1 protein is labelled with His tag.

### Product Details

Purpose:	Custom-made recombinant INPPL1 Protein expressed in mammalian cells.
Sequence:	<p>MASACGAPGP GGALGSQAPS WYHRDLSRAA AEELLARAGR DGSFLVRDSE SVAGAFALCV  LYQKHVHTYR ILPDGEDFLA VQTSQGVVPR RFQTLGELIG LYAQPNGQLV CALLLPVEGE  REPDPDDRD ASDGEDEKPP LPPRSGSTSI SAPTGPSSPL PAPETPTAPA AESAPNGLST  VSHDYLKGSY GLDLEAVRGG ASHLPHLTRT LATSCRRLHS EVDKVLSGLE ILSKVFDQQS  SPMVTRLLQQ QNLPQTGEQE LESLVKLKSV LKDFLSGIQK KALKALQDMS STAPPAPQPS  TRKAKTIPVQ AFEVKLDVTL GDLTKIGKSQ KFTLSVDVEG GRLVLLRRQR DSQEDWTTFT  HDIRQLIKS QRVQNKLGVV FEKEKDRTQR KDFIFVSARK REAFCQLLQL MKNKHSKQDE  PDMISVFIGT WNMGSVPPPK NVTSWFTSKG LGKTLDEVTV TIPHDIYVFG TQENSVGDRE  WLDLLRGGLK ELTDLDYRPI AMQSLWNIVK AVLVKPEHEN RISHVSTSSV KTGIANLTGN  KGAVGVSFMF NGTSFGFVNC HLTSGNEKTA RRNQNYLDIL RLLSLGDRQL NAFDISLRFT  HLFWFGDLNY RLDMDIQEIL NYISRKEFEP LLRVDQLNLE REKHKVFLRF SEEEISFPPT  YRYERGSRTD YAWHKQKPTG VRTNVPSWCD RILWKSYPET HIICNSYGCT DDIVTSDHSP</p>

VFGTFEVGVT SQFISKKGLS KTSDQAYIEF ESIEAIVKTA SRTKFFIEFY STCLEEYKKS  
FENDAQSSDN INFLKVQWSS RQLPTLKPII ADIEYLQDQH LLLTVKSMDG YESYGECVVA  
LKSMIGSTAQ QFLTFLSHRG EETGNIRGSM KVRVPTERLG TRERLYEWIS IDKDEAGAKS  
KAPSVSRGSQ EPRSGSRKPA FTEASCPLSR LFEEPEKPPP TGRPPAPPRA APREEPLTPR  
LKPEGAPEPE GVAAPPPKNS FNNPAYVLE GVPHQLLPPE PPSPARAPVP SATKNKVAIT  
VPAPQLGHHR HPRVGEGSSS DEESGGTLPP PDFPPPPLPD SAIFLPPSLD PLPGPVVRGR  
GGAEARGPPP PKAHPRPPLP PGPSPASTFL GEVASGDDRS CSVLQMAKTL SEVDYAPAGP  
ARSALLPGPL ELQPPRGLPS DYGRPLSFPP PRIRESIQED LAEEAPCLQG GRASGLGEAG  
MSAWLRAIGL ERYEEGLVHN GWDDLEFLSD ITEEDLEEAG VQDPAHKRLL LDTLQLSK **Sequence**  
**without tag. The proposed Purification-Tag is based on experiences 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.**

Specificity: If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Characteristics: Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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 try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity: > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

Grade: custom-made

Target Details

Target: INPPL1

## Target Details

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Alternative Name: INPPL1 ([INPPL1 Products](#))

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**Background:** Phosphatidylinositol 3,4,5-trisphosphate 5-phosphatase 2 (EC 3.1.3.86) (Inositol polyphosphate phosphatase-like protein 1) (INPPL-1) (Protein 51C) (SH2 domain-containing inositol 5'-phosphatase 2) (SH2 domain-containing inositol phosphatase 2) (SHIP-2),FUNCTION: Phosphatidylinositol (PtdIns) phosphatase that specifically hydrolyzes the 5-phosphate of phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P3) to produce PtdIns(3,4)P2, thereby negatively regulating the PI3K (phosphoinositide 3-kinase) pathways (PubMed:16824732). Required for correct mitotic spindle orientation and therefore progression of mitosis (By similarity). Plays a central role in regulation of PI3K-dependent insulin signaling, although the precise molecular mechanisms and signaling pathways remain unclear (PubMed:9660833). While overexpression reduces both insulin-stimulated MAP kinase and Akt activation, its absence does not affect insulin signaling or GLUT4 trafficking (By similarity). Confers resistance to dietary obesity (By similarity). May act by regulating AKT2, but not AKT1, phosphorylation at the plasma membrane (By similarity). Part of a signaling pathway that regulates actin cytoskeleton remodeling (PubMed:11739414, PubMed:12676785). Required for the maintenance and dynamic remodeling of actin structures as well as in endocytosis, having a major impact on ligand-induced EGFR internalization and degradation (PubMed:15668240). Participates in regulation of cortical and submembraneous actin by hydrolyzing PtdIns(3,4,5)P3 thereby regulating membrane ruffling (PubMed:21624956). Regulates cell adhesion and cell spreading (PubMed:12235291). Required for HGF-mediated lamellipodium formation, cell scattering and spreading (PubMed:15735664). Acts as a negative regulator of EPHA2 receptor endocytosis by inhibiting via PI3K-dependent Rac1 activation (PubMed:17135240). Acts as a regulator of neuritogenesis by regulating PtdIns(3,4,5)P3 level and is required to form an initial protrusive pattern, and later, maintain proper neurite outgrowth (By similarity). Acts as a negative regulator of the FC-gamma-RIIA receptor (FCGR2A) (PubMed:12690104). Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems (PubMed:11016922). Involved in EGF signaling pathway (PubMed:11349134). Upon stimulation by EGF, it is recruited by EGFR and dephosphorylates PtdIns(3,4,5)P3 (PubMed:11349134). Plays a negative role in regulating the PI3K-PKB pathway, possibly by inhibiting PKB activity (PubMed:11349134). Down-regulates Fc-gamma-R-mediated phagocytosis in macrophages independently of INPP5D/SHIP1 (By similarity). In macrophages, down-regulates NF-kappa-B-dependent gene transcription by regulating macrophage colony-stimulating factor (M-CSF)-induced signaling (By similarity). Plays a role in the localization of AURKA and NEDD9/HEF1 to the basolateral membrane at interphase in polarized cysts, thereby mediates cell cycle

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## Target Details

homeostasis, cell polarization and cilia assembly (By similarity). Additionally promotion of cilia growth is also facilitated by hydrolysis of (PtdIns(3,4,5)P3) to PtdIns(3,4)P2 (By similarity). Promotes formation of apical membrane-initiation sites during the initial stages of lumen formation via Rho family-induced actin filament organization and CTNNB1 localization to cell-cell contacts (By similarity). May also hydrolyze PtdIns(1,3,4,5)P4, and could thus affect the levels of the higher inositol polyphosphates like InsP6. Involved in endochondral ossification (PubMed:23273569). {ECO:0000250|UniProtKB:F1PNY0, ECO:0000250|UniProtKB:Q6P549, ECO:0000250|UniProtKB:Q9WVR3, ECO:0000269|PubMed:11016922, ECO:0000269|PubMed:11349134, ECO:0000269|PubMed:11739414, ECO:0000269|PubMed:12235291, ECO:0000269|PubMed:12676785, ECO:0000269|PubMed:12690104, ECO:0000269|PubMed:15668240, ECO:0000269|PubMed:15735664, ECO:0000269|PubMed:16824732, ECO:0000269|PubMed:17135240, ECO:0000269|PubMed:21624956, ECO:0000269|PubMed:23273569, ECO:0000269|PubMed:9660833}.

Molecular Weight: 138.6 kDa

UniProt: [O15357](#)

Pathways: [Platelet-derived growth Factor Receptor Signaling](#)

## Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: The buffer composition 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: 12 months