

Datasheet for ABIN3135749

**INPPL1 Protein (AA 1-1257) (His tag)****1** Image[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	INPPL1
Protein Characteristics:	AA 1-1257
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This INPPL1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	MASVCGTPSP GGALGSPAPA WYHRDLSRAA AEELLARAGR DGSFLVRDSE SVAGAFALCV LYQKHVHTYR ILPDGEDFLA VQTSQGVVPR RFQTLGELIG LYAQPNGQLV CALLLPVEGE REPDPPDDRD ASDVEDEKPP LPPRSGSTSI SAPVGPSSPL PTPETPTTPA AESTPNGLST VSHEYLKGSY GLDLEAVRGG ASNLPHLTRT LVTSCRRLHS EVDKVLSGLE ILSKVFDQQS SPMVTRLLQQ QSLPQTGEQE LESLVKLKSV LKDFLSGIQK KALKALQDMS STAPPAPLQP SIRKAKTIPV QAFEVKLDVT LGDLTKIGKS QKFTLSVDVE GGRLVLLRRQ RDSQEDWTF THDRIRQLIK SQRVQNKLG VFEKEKDRTQ RKDFIFVSAR KREAFQQLLQ LMKNRHSKQD EPDMISVFIG TWNMGSVPPP KNVTSWFTSK GLGKALDEVT VTIPHDYVF GTQENSVGDR EWLDLLRGGL KELTSIDYRP IAMQSLWNIK VAVLVKPEHE NRISHVSTSS VKTGIANLGL NKGAVGVFSM FNGTSFGFVN CHLTSGNEKT TRRNQNYLDI LRLSLGDRQ LSAFDISLRF THLFWFGDLN YRLDMDIQEI LNYISRREFE PLLRVDQLNL EREKHKVFLR FSEEEISFPP TYRYERGSRD TYAWHKQKPT GVRTNVPSWC DRILWKSYPE THICNSYGC TDDIVTSDHS
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PVFGTFEYGV TSQFISKKGL SKTSDQAYIE FESIEAIVKT ASRTKFFIEF YSTCLEEYKK  
SFENDAQSSD NINFLKVQWS SRQLPTLKPI LADIEYLQDQ HLLLTVKSMG GYESYGECCV  
ALKSMIGSTA QQFLTFLSHR GEETGNIRGS MKVRVPTEERL GTRERLYEWI SIDKDDTGAK  
SKVPSVSRGS QEHRSGSRKP ASTETSCPLS KLFEEPEKPP PTGRPPAPPR AVPREEPLNP  
RLKSEGTSQ EGVAAPPPKN SFNNPAYVYL EGVPHQLLPL EPPSLARAPL PPATKNKVAI  
TVPAPQLGRH RTPRVGEGSS SDEDSGGTLP PPDFPPPPLP DSAIFLPPNL DPLSMPVVRG  
RSGGEARGPP PPKAHPRPPL PPGTSPASTF LGEVASGDDR SCSVLQMAKT LSEVDYAPGP  
GRSALLPNPL ELQPPRGPSD YGRPLSFPPP RRESIQEDL AEEAPCPQGG RASGLGEAGM  
GAWLRAIGLE RYEEGLVHNG WDDLEFLSDI TEEDLEEAGV QDPAHKRLLL DTLQLSK

**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.
- Mouse Inpp1 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:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate

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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: >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: INPPL1

Alternative Name: Inpp1 ([INPPL1 Products](#))

Background: 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. Plays a central role in regulation of PI3K-dependent insulin signaling, although the precise molecular mechanisms and signaling pathways remain unclear. While overexpression reduces both insulin-stimulated MAP kinase and Akt activation, its absence does not affect insulin signaling or GLUT4 trafficking. Confers resistance to dietary obesity. May act by regulating AKT2, but not AKT1, phosphorylation at the plasma membrane. Part of a signaling pathway that regulates actin cytoskeleton remodeling. 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. Participates in regulation of cortical and submembraneous actin by hydrolyzing PtdIns(3,4,5)P3 thereby regulating membrane ruffling (By similarity). Regulates cell adhesion and cell spreading. Required for HGF-mediated lamellipodium formation, cell scattering and spreading. Acts as a negative regulator of EPHA2 receptor endocytosis by inhibiting via PI3K-dependent Rac1 activation. 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. Acts as a negative regulator of the FC-gamma-RIIA receptor (FCGR2A). Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems. Involved in EGF signaling pathway. Upon stimulation by EGF, it is recruited by EGFR and dephosphorylates PtdIns(3,4,5)P3. Plays a

## Target Details

negative role in regulating the PI3K-PKB pathway, possibly by inhibiting PKB activity. Down-regulates Fc-gamma-R-mediated phagocytosis in macrophages independently of INPP5D/SHIP1. In macrophages, down-regulates NF-kappa-B-dependent gene transcription by regulating macrophage colony-stimulating factor (M-CSF)-induced signaling. 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 (By similarity). {ECO:0000250|UniProtKB:O15357, ECO:0000269|PubMed:10958682, ECO:0000269|PubMed:11343120, ECO:0000269|PubMed:14744864, ECO:0000269|PubMed:15557176, ECO:0000269|PubMed:15654325, ECO:0000269|PubMed:16179375}.

Molecular Weight: 139.9 kDa Including tag.

UniProt: [Q6P549](#)

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

## 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.

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)



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