

## Datasheet for ABIN3118363 IL1RAP Protein (AA 21-570) (rho-1D4 tag)



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#### Overview

Quantity:	1 mg
Target:	IL1RAP
Protein Characteristics:	AA 21-570
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IL1RAP protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence:	<p>SERCDDWGLD TMRQIQVFED EPARIKCPLF EHFLKFNYSY AHSAGLTLIW YWTRQDRDLE  EPINFRLPEN RISKEKDVLW FRPTLLNDTG NYTCMLRNTT YCSKVAFPLE VVQKDSFNS  PMKLPVHKLY IEYGIQRITC PNVDGYFPSS VKPTITWYMG CYKIQNFNNV IPEGMNLSFL  IALISNNGNY TCVVTYPENG RTFHLTRTLT VKVVGSPKNA VPPVIHSPND HVVYEKEPGE  ELLIPCTVYF SFLMDSRNEV WWTIDGKKPD DITIDVTINE SISHSRTEDE TRTQILSIKK  VTSEDLKRSY VCHARSAKGE VAKAAKVQKQ VPAPRYTVEL ACGFGATVLL VVILIVVYHV  YWLEMVLFYR AHFGTDETL DGKEYDIYVS YARNAEEEEF VLLTLRGVLE NEFGYKLCIF  DRDSLPGGIV TDETLFSIQK SRRLVLVLS NYVLQGTQAL LELKAGLENM ASRGNINVL  VQYKAVKETK VKELKRAKTV LTVIKWKGEK SKYPQGRFWK QLQVAMPVKK SPRSSSDEQ  GLSYSSLKNV</p> <p><b>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</b></p>
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## Product Details

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- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Human IL1RAP 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 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 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:	IL1RAP
Alternative Name:	IL1RAP ( <a href="#">IL1RAP Products</a> )
Background:	<p>Coreceptor for IL1RL2 in the IL-36 signaling system (By similarity). Coreceptor with IL1R1 in the IL-1 signaling system. Associates with IL1R1 bound to IL1B to form the high affinity interleukin-1 receptor complex which mediates interleukin-1-dependent activation of NF-kappa-B and other pathways. Signaling involves the recruitment of adapter molecules such as TOLLIP, MYD88, and IRAK1 or IRAK2 via the respective TIR domains of the receptor/coreceptor subunits. Recruits TOLLIP to the signaling complex. Does not bind to interleukin-1 alone, binding of IL1RN to IL1R1, prevents its association with IL1R1 to form a signaling complex. The cellular response is modulated through a non-signaling association with the membrane IL1R2 decoy receptor. Coreceptor for IL1RL1 in the IL-33 signaling system. {ECO:0000250 UniProtKB:Q61730, ECO:0000269 PubMed:10799889, ECO:0000269 PubMed:9371760, ECO:0000305 PubMed:19836339}., Isoform 2: Associates with secreted ligand-bound IL1R2 and increases the affinity of secreted IL1R2 for IL1B, this complex formation may be the dominant mechanism for neutralization of IL1B by secreted/soluble receptors (PubMed:12530978). Enhances the ability of secreted IL1R1 to inhibit IL-33 signaling (By similarity). {ECO:0000250 UniProtKB:Q61730, ECO:0000269 PubMed:12530978}., Isoform 4: Unable to mediate canonical IL-1 signaling (PubMed:19481478). Required for Src phosphorylation by IL1B. May be involved in IL1B-potentiated NMDA-induced calcium influx in neurons (By similarity). {ECO:0000250 UniProtKB:Q61730, ECO:0000269 PubMed:19481478}.</p>
Molecular Weight:	64.3 kDa Including tag.
UniProt:	<a href="#">Q9NPH3</a>
Pathways:	<a href="#">NF-kappaB Signaling</a> , <a href="#">Growth Factor Binding</a>

## 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:	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)

## Images



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