

Datasheet for ABIN3133622

## PTPN22 Protein (AA 1-802) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	PTPN22
Protein Characteristics:	AA 1-802
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PTPN22 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence:	<p>MDQREILQQL LKEAQKKKLN SEEFASEFLK LKRQSTKYKA DKYPTTVAQ RPKNIKKNRY</p> <p>KDILPYDHSL VELSLTSDS DSSYINASFI KGVYGPKEYI ATQGPLSTTL LDFWRMIWEY</p> <p>RILVIVMACM EFEMGKKKCE RYWAEPGETQ LQFGPFSISC EAEKKKSDYK IRTLKAKFNN</p> <p>ETRIIYQFHY KNWPDHDPVS SIDPILQLIW DMRCYQEDDC VPICIHCSAG CGRTGVICAV</p> <p>DYTWMLLDKG IIPKNFSVFN LIQEMRTQRP SLVQTQEQYE LVYSAVLELF KRHMDDVISDN</p> <p>HLGREIQAQC SIPEQSLTVE ADSCPLDLPK NAMRDVKTTN QHSKQGAEAE STGGSSSLGLR</p> <p>TSTMNAEEEL VLHSAKSSPS FNCLELNCGC NNKAVITRNG QARASPVVGE PLQKYQSLDF</p> <p>GSMLFGSCPS ALPINTADRY HNSKGPVKRT KSTPFELIQQ RKTNDLAVGD GFSCLESQHLH</p> <p>EHYSLRELQV QRVAVHSSEE LNYSLPGACD ASCVPRHSPG ALRVHLYTSL AEDPYFSSSP</p> <p>PNSADSKMSF DLPEKQDGAT SPGALLPASS TTSFFYSNPH DSLVMNTLTS FSPPLNQETA</p> <p>VEAPSRRTDD EIPPLPERT PESFIVVEEA GEPSRVTES LPLVVTFGAS PECSGTSEMK</p> <p>SHDSVGFTPS KNVKLRSPKS DRHQDGSPPP PLPERTLESF FLADEDICQA QAVQTSSTSY</p>
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PETTENSTSS KQTLRTPGKS FTRSKSLKIF RNMKKSVCSNS SSPSKPTERV QPKNSSSFLN  
FGFGNRFSKP KGPRNPPSAW NM

**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 Ptpn22 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 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.

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Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Sterility:

0.22 µm filtered

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Endotoxin Level:

Protein is endotoxin free.

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## Product Details

Grade: Crystallography grade

## Target Details

Target: PTPN22

Alternative Name: Ptpn22 ([PTPN22 Products](#))

Background: Acts as negative regulator of T-cell receptor (TCR) signaling by direct dephosphorylation of the Src family kinases LCK and FYN, ITAMs of the TCRz/CD3 complex, as well as ZAP70, VAV, VCP and other key signaling molecules (By similarity). Associates with and probably dephosphorylates CBL (By similarity). Dephosphorylates LCK at its activating 'Tyr-394' residue (By similarity). Dephosphorylates ZAP70 at its activating 'Tyr-492' residue (By similarity). Dephosphorylates the immune system activator SKAP2 (By similarity). Positively regulates toll-like receptor (TLR)-induced type 1 interferon production (PubMed:23871208). Promotes host antiviral responses mediated by type 1 interferon (PubMed:23871208). Regulates NOD2-induced pro-inflammatory cytokine secretion and autophagy (PubMed:23991106). {ECO:0000250|UniProtKB:Q9Y2R2, ECO:0000269|PubMed:23871208, ECO:0000269|PubMed:23991106}.

Molecular Weight: 90.7 kDa Including tag.

UniProt: [P29352](#)

## 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

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