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# MPZL1 Protein (AA 36-270) (rho-1D4 tag)



**Image** 



### Overview

Quantity:	1 mg
Target:	MPZL1
Protein Characteristics:	AA 36-270
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MPZL1 protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys)
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### **Product Details**

Sequence:	
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SALEVHTPKE IFVVNGTQGK LTCTFDSPNT TGWLTTVSWS FQPDGTDSAV SFFHYSQGQV YIGDYPPFKD RVTWAGDLDK KDASINIENI QAVHNGTYIC DVKNPPDIVV RPGHIRLHVV EIDNLLVFLV WVVVGTVTAV VLGLTLLISL VLVVLYRRKH SKRDYTGCST SERLSPVKQA PRKCPSDTEG LVKSPPSAGS HQGPVIYAQL DHSGGHHSGK INKSESVVYA DIRKD

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

### Characteristics:

- Made in Germany from design to production by highly experienced protein experts.
- Mouse Mpzl1 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 receival 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 fractioned 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.
- Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. 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:	MPZL1
Alternative Name:	Mpzl1 (MPZL1 Products)
Background:	Cell surface receptor, which is involved in signal transduction processes. Recruits

## **Target Details**

PTPN11/SHP-2 to the cell membrane and is a putative substrate of PTPN11/SHP-2. Is a major receptor for concanavalin-A (ConA) and is involved in cellular signaling induced by ConA, which probably includes Src family tyrosine-protein kinases. Isoform 2 seems to have a dominant negative role, it blocks tyrosine phosphorylation of MPZL1 induced by ConA. Isoform 1, but not isoform 2, may be involved in regulation of integrin-mediated cell motility (By similarity). {ECO:0000250}.

Molecular Weight:

27.0 kDa Including tag.

UniProt:

Q3TEW6

# **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 gurantee

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