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## CHMP2A Protein (AA 1-222) (His tag)



### **Image**



#### Overview

Overview	
Quantity:	1 mg
Target:	CHMP2A
Protein Characteristics:	AA 1-222
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CHMP2A protein is labelled with His tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys)
Product Details	
Sequence:	MDLLFGRRKT PEELLRQNQR ALNRAMRELD RERQKLETQE KKIIADIKKM AKQGQMDAVR

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Sequence:	MDLLFGRRKT PEELLRQNQR ALNRAMRELD RERQKLETQE KKIIADIKKM AKQGQMDAVR
	IMAKDLVRTR RYVRKFVLMR ANIQAVSLKI QTLKSNNSMA QAMKGVTKAM GTMNRQLKLP
	QIQKIMMEFE RQAEIMDMKE EMMNDAIDDA MGDEEDEES DAVVSQVLDE LGLSLTDELS
	NLPSTGGSLS VAAGGKKAEA TASALADADA DLEERLKNLR RD
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a
	special request, please contact us.
Characteristics:	<ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Mouse Chmp2a Protein (raised in E. Coli) purified by multi-step, protein-specific process to</li> </ul>

- 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:

Two step purification of proteins expressed in bacterial culture:

- 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.

Purity:

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

Sterility:

0.22 µm filtered

Endotoxin Level:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

#### **Target Details**

Target:	CHMP2A
Alternative Name:	Chmp2a (CHMP2A Products)
Background:	Probable core component of the endosomal sorting required for transport complex III (ESCRT-
	III) which is involved in multivesicular bodies (MVBs) formation and sorting of endosomal cargo
	proteins into MVBs. MVBs contain intraluminal vesicles (ILVs) that are generated by

invagination and scission from the limiting membrane of the endosome and mostly are
delivered to lysosomes enabling degradation of membrane proteins, such as stimulated growth
factor receptors, lysosomal enzymes and lipids. The MVB pathway appears to require the
sequential function of ESCRT-0, -I,-II and -III complexes. ESCRT-III proteins mostly dissociate
from the invaginating membrane before the ILV is released. The ESCRT machinery also
functions in topologically equivalent membrane fission events, such as the terminal stages of
cytokinesis. Together with SPAST, the ESCRT-III complex promotes nuclear envelope sealing
and mitotic spindle disassembly during late anaphase. ESCRT-III proteins are believed to
mediate the necessary vesicle extrusion and/or membrane fission activities, possibly in
conjunction with the AAA ATPase VPS4. {ECO:0000250 UniProtKB:043633}.

In addition to the applications listed above we expect the protein to work for functional studies

Molecular Weight:	26.1 kDa Including tag.
UniProt:	Q9DB34
Pathways:	SARS-CoV-2 Protein Interactome

## **Application Details**

Application Notes:

	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