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# C2CD2L Protein (AA 1-706) (Strep Tag)



#### Overview

Quantity:	1 mg
Target:	C2CD2L
Protein Characteristics:	AA 1-706
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This C2CD2L protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### **Product Details**

Sequence:

MDPDWGQRDV GWAALLVLFA ASLITVLGWM LQYARGLWLS RADGGRDSRP ASAAEPGGSL RELGVWRSLL RLRATRTSTP EEAGVRGLLA SLFAFKSFRE NWQRAWVRAL NEQACRDGSS IQIAFEEIPQ LPPRASISHV TCVDQSERTM VLHCQLSAEE VRFPISVTQQ SPAAVSMETY HVTLTLPPTQ LEVSLEEIPD EGLLVSWAFT DRPELSLKVL PKLQTRERDE EQPELSTVEE LIKDAIVSTQ PAMMVNLRAC SAPGGLVPSE KPPTMSQAQP SIPRPTRLFL RQLRASHLGS ELGGTEELCC AAELDNPMQQ KWTKPMRAGP EVEWTEDLAL DLGPQSRELT LKVLRSSSCG DAELLGQATL PVGSPSRPMS RRQVCPLTPG PGKSLSPAAT VTAELHYEQG SPRNLGTPTS STPRPSITPT KKIELDRTIM PDGTVVTTVT TVQSRPRVDG KLDSPSRSPS KVEVTEKMTT VLSESSGPSN ASHSSSRESH LSNGLDPVAE TAIRQLTEPS GRAAKKTPTK RSTLIISGVS KVPIAQDELA LSLGYAASLE ASMQDDAGTS GGPSSPPSDP SATSPGPVDA LSSPTSVQEA DETTRSDISE RPSVDDVESE TGSTGALETR SLKDHKVSFL RSGTKLIFRR RPRQKEAGLS QSHDDLSNTT ATPSVRKKAG SFSRRLIKRF SFKSKPKANG NPSPQL

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

#### Characteristics:

#### Key Benefits:

- · Made in Germany from design to production by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require posttranslational modifications.
- During lysate production, the cell wall and other cellular components that are not required for
  protein production are removed, leaving only the protein production machinery and the
  mitochondria to drive the reaction. During our lysate completion steps, the additional
  components needed for protein production (amino acids, cofactors, etc.) are added to
  produce something that functions like a cell, but without the constraints of a living system all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- 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.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

## Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

- 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
- 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:

≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade:

Crystallography grade

#### **Target Details**

Target:

C2CD2L

Alternative Name:

C2cd2l (C2CD2L Products)

Background:

Phospholipid transfer protein C2CD2L (C2 domain-containing protein 2-like) (Transmembrane protein 24),FUNCTION: Lipid-binding protein that transports phosphatidylinositol, the precursor of phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), from its site of synthesis in the endoplasmic reticulum to the cell membrane (By similarity). It thereby maintains the pool of cell membrane phosphoinositides, which are degraded during phospholipase C (PLC) signaling (By similarity). Plays a key role in the coordination of Ca(2+) and phosphoinositide signaling: localizes to sites of contact between the endoplasmic reticulum and the cell membrane, where it tethers the two bilayers (By similarity). In response to elevation of cytosolic Ca(2+), it is phosphorylated at its C-terminus and dissociates from the cell membrane, abolishing phosphatidylinositol transport to the cell membrane (By similarity). Positively regulates insulin secretion in response to glucose (PubMed:24012759). Phosphatidylinositol transfer to the cell membrane allows replenishment of PI(4,5)P2 pools and calcium channel opening, priming a new population of insulin granules (By similarity). {ECO:0000250|UniProtKB:014523, ECO:0000269|PubMed:24012759}.

Molecular Weight:

76.3 kDa

UniProt:

080X80

### **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.

# **Application Details**

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Restrictions:

For Research Use only

# Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)