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# FCHSD2 Protein (AA 1-740) (Strep Tag)





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#### Overview

| Quantity:                     | 1 mg  |
|-------------------------------|---|
| Target:                       | FCHSD2  |
| Protein Characteristics:      | AA 1-740  |
| Origin:                       | Mouse   |
| Source:                       | Tobacco (Nicotiana tabacum)                     |
| Protein Type:                 | Recombinant                                     |
| Purification tag / Conjugate: | This FCHSD2 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)    |

#### **Product Details**

Sequence:

MQPPPRKVKV TQELRNIQGE QMTKLQAKHQ AECDLLEDMR TFSQKKAAIE REYAQGIQKL ASQYLKRDWP GIKTDDRNDY RSMYPVWKSF LEGTMQVAQS RINICENYKN FISEPARAVR SLKEQQLKRC VDQLTKIQTE LQETVKDLVK GKKKYFETEQ MAHAVREKAD IEAKSKLSLF QSRISLQKAS VKLKARRSEC NTKATHARND YLLTLAAANA HQDRYYQTDL VNIMKALDGN VYDHLKDYLI AFSRTELETC QAIQNTFQFL LENSSKVVRD YNLQLFLQEN AVFHKPQPFQ FQPCDSDTSR QLESETGTTE EHSLNKEARK WATRVAREHK NIVHQQRVLN ELECHGVALS EQSRAELEQK IDEARESIRK AEIIKLKAEA RLDLLKQIGV SVDTWLKSAM NQVMEELENE RWARPPAVTS NGTLHSLNAD AEREEGEEFE DNMDVFDDSS SSPSGTLRNY PLTCKVVYSY KASQPDELTI EEHEVLEVIE DGDMEDWVKA RNKVGQVGYV PEKYLQFPTS NSLLSMLQSL AALDSRSHTS SNSTEAELVS GSLNGDASVC FVKALYDYEG QTDDELSFPE GAIIRILNKE NQDDDGFWEG EFSGRIGVFP SVLVEELSAS ENGDTPWTRE IQISPSPKPH TSLPPLPLYD QPPSSPYPSP DKRSSQFFPR SPSANENSLH AESPGFSQAS RQTPDTSYGK LRPVRAAPPP

#### PTQNHRRTTE KMEDVEITLV

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: FCHSD2 Alternative Name: Fchsd2 (FCHSD2 Products) Background: F-BAR and double SH3 domains protein 2 (Protein nervous wreck 1) (NWK1) (SH3 multiple domains protein 3), FUNCTION: Adapter protein that plays a role in endocytosis via clathrincoated pits. Contributes to the internalization of cell surface receptors, such as integrin ITGB1 and transferrin receptor. Promotes endocytosis of EGFR in cancer cells, and thereby contributes to the down-regulation of EGFR signaling. Recruited to clathrin-coated pits during a mid-to-late stage of assembly, where it is required for normal progress from U-shaped intermediate stage pits to terminal, omega-shaped pits. Binds to membranes enriched in phosphatidylinositol 3,4-bisphosphate or phosphatidylinositol 3,4,5-trisphosphate (By similarity). When bound to membranes, promotes actin polymerization via its interaction with WAS and/or WASL which leads to the activation of the Arp2/3 complex (PubMed:23437151). Does not promote actin polymerisation in the absence of membranes (By similarity). {ECO:0000250|UniProtKB:094868, ECO:0000305|PubMed:23437151}. Molecular Weight: 84.3 kDa UniProt: Q3USJ8

### **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**

#### Comment:

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 post-translational 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!

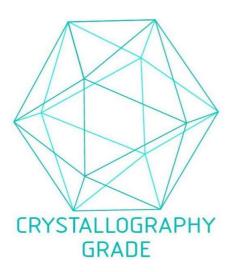
Restrictions:

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)   |

#### **Images**



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