

Datasheet for ABIN3136007

## DAAM2 Protein (AA 1-1115) (Strep Tag)



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### Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 250 µg   |
| Target:                       | DAAM2  |
| Protein Characteristics:      | AA 1-1115                                      |
| Origin:                       | Mouse  |
| Source:                       | Cell-free protein synthesis (CFPS)             |
| Protein Type:                 | Recombinant                                    |
| Purification tag / Conjugate: | This DAAM2 protein is labelled with Strep Tag. |
| Application:                  | Western Blotting (WB), SDS-PAGE (SDS), ELISA   |

### Product Details

|           |  |
|-----------|--|
| Brand:    | AliCE®   |
| Sequence: | <p>MALRKRSPhG LGFLCCFGGS DLPEIDLRDS HPLQYLEFSG PIPNPEELNV RFAELVDELD</p> <p>LTDKNREAVF ALPPEKKWQI YCSKRKEQED PNKLATSWPE YYIDRINAMA AMQNLyETED</p> <p>EETDKRNQVV EDLKTALRTQ PMRFVTRFID LEGLTCLLNF LRGMDHTTCE SRIHTSLIGC</p> <p>IKALMNNSQG RAHVLAQPEA ISIIAQLRT ENSKTKVAVL EILGAVCLVP GGHKKVLQAM</p> <p>LHYQAYAAER TRFQTLNEL DRSLGRYRDE VNLKTAIMSF INAVLNAGAG EDNLEFRLHL</p> <p>RYEFLMLGIQ PVIDKLRQHE NAILDKHLDF FEMVRNEDDL ELARRFDMVH IDTKSASQMF</p> <p>ELIHKKLKHT EAYPCLLSVL HHCLQMPYKR NGGYFQQWQL LDRILQQIVL QDERGVDPDL</p> <p>APLENFNVKN IVNMLINENE VKQWRDQAEK FRKEHMELMS RLERKERECE TKTLEKEEMM</p> <p>RTLNMKMDKL ARESQELRQA RGQVAELVAR HNESSTGPVS SPPPPGGPLT LSSSRTTNDL</p> <p>PPPPPLPFD SCPPPPAPPL PPGGPIPPG APPCFSSGPP PSHDPFSSNE APLRKKRIPQ</p> <p>PSHPLKSFNW VKLNEERVSG TVWNEIDDSQ VFRILDLEDF EKMFSAYQRH QACMQEGPQR</p> |

ERGNVRDGGGA ASRPLPAVEA SAHRTEKASR SMVSATGAKK ELGSTEDIYI TSRKVKELSV  
IDGRRANQNCI ILLSKLKLSN DEIRQAILRM DEQEDLAKDM LEQLLKFIPE KSDIDLLEEH  
KHEIERMARA DRFLYEMSRI DHYQQRLQAL FFKKKFQERL AEAQPKVEAI LLASRELTLS  
QRLKQMLEVV LAIGNFMNKG QRGGAYGFRV ASLNKIADTK SSIDRNISLL HYLIMILEKH  
FPDILNMPSE LKHLSEAAKV NLAELEKEVS ILRRGLRAVE VELEYQRHQA RDPNDKFVPV  
MSDFITVSSF SFSELEDQLN EARDKFAKAL THFGEQESKM QPDEFFGIFD TFLQAFLEAR  
QDLEAMRRRK EEDERRARME FMLKEQREKE RWQRQRKVLA GGALEESGEF DDLVSALRSG  
EVFDKDL SKF KRNKRPGSQ VPEVTRERAI NRLNY

**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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 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!

#### Concentration:

## Product Details

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

## Target Details

Target: DAAM2

Alternative Name: Daam2 ([DAAM2 Products](#))

Background: Disheveled-associated activator of morphogenesis 2, FUNCTION: Key regulator of the Wnt signaling pathway, which is required for various processes during development, such as dorsal patterning, determination of left/right symmetry or myelination in the central nervous system (PubMed:22227309, PubMed:24091014, PubMed:25754822). Acts downstream of Wnt ligands and upstream of beta-catenin (CTNNB1) (PubMed:22227309, PubMed:25754822). Required for canonical Wnt signaling pathway during patterning in the dorsal spinal cord by promoting the aggregation of Disheveled (Dvl) complexes, thereby clustering and formation of Wnt receptor signalosomes and potentiating Wnt activity (PubMed:22227309). During dorsal patterning of the spinal cord, inhibits oligodendrocytes differentiation via interaction with PIP5K1A (PubMed:25754822). Also regulates non-canonical Wnt signaling pathway (PubMed:24091014). Acts downstream of PITX2 in the developing gut and is required for left/right asymmetry within dorsal mesentery: affects mesenchymal condensation by lengthening cadherin-based junctions through WNT5A and non-canonical Wnt signaling, inducing polarized condensation in the left dorsal mesentery necessary to initiate gut rotation (PubMed:24091014). Together with DAAM1, required for myocardial maturation and sarcomere assembly (PubMed:26526197). Is a regulator of actin nucleation and elongation, filopodia formation and podocyte migration (By similarity). {ECO:0000250|UniProtKB:Q86T65, ECO:0000269|PubMed:22227309, ECO:0000269|PubMed:24091014, ECO:0000269|PubMed:25754822, ECO:0000269|PubMed:26526197}.

Molecular Weight: 128.4 kDa

UniProt: [Q80U19](#)

## 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:** 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.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

**Handling Advice:** Avoid repeated freeze-thaw cycles.

**Storage:** -80 °C

**Storage Comment:** Store at -80°C.

**Expiry Date:** 12 months