

Datasheet for ABIN3092117

## DENND3 Protein (AA 1-1198) (Strep Tag)



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### Overview

|                               |   |
|-------------------------------|---|
| Quantity:                     | 250 µg  |
| Target:                       | DENND3  |
| Protein Characteristics:      | AA 1-1198                                       |
| Origin:                       | Human   |
| Source:                       | Cell-free protein synthesis (CFPS)              |
| Protein Type:                 | Recombinant                                     |
| Purification tag / Conjugate: | This DENND3 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)    |

### Product Details

|           |  |
|-----------|--|
| Brand:    | AliCE®   |
| Sequence: | <p> MRS LRKKREK PRPEQWKGLP GPPRAPEPED VAVPGGVDLL TLPQLCFPGG VCVATEPKED<br/> CVHFLVLTDV CGNRTYGVA QYYRPLHDEY CFYNGKTHRE CPGCFVPFAV CVVSRFPYYN<br/> SLKDCLSCLL ALLKPCKDFE VDSHIKFAA KLSLIPSPPP GPLHLVFNMK SLQIVL PARA<br/> DPESPILDLD LHLPLLCFRP EKVLQILTCI LTEQRIVFFS SDWALLTLVT ECFMAYLYPL<br/> QWQHPFVPIL SDQMLDFVMA PTSFLMGCHL DHFEEVSKEA DGLVLINIDH GSITYSKSTD<br/> DNVDIPDVPL LAAQTFIQRV QSLQLHHELH AAHLLSSTD LKEGRAHRRSW QQKLNCQIQQ<br/> TTLQLLVSIF RDVKNHLN YEHRVFNSEEF LKTRAPGDHQF YKQVLDTYMF HSFLKARLNR<br/> RMDAFAQMDL DTQSEEDRIN GMLLSPPRPT VEKRASRKSS HLHVTHRRMV VSMPNLQDIA<br/> MPELAPRNSS LRLDTAGCR GSSAVLNVT P KSPYTFKIPE IHFPLESKCV QAYHAHFVSM<br/> LSEAMCFLAP DNSLLLARYL YLRGLVYLMQ GQLLNALLDF QNLYKTDIRI FPTDLVKRTV<br/> ESMSAPEWEG AEQAPELMRL ISEILDKPHE ASKLDDHVKK FKLPPKHMQL GDFMKRVQES </p> |

GIVKDASIIH RLFEALTVGQ EKQIDPETFK DFYNCWKETE AEAQEVSLPW LVMEHLDKNE  
CVCKLSSSVK TNLGVGKIAM TQKRLFLTE GRPGYLEIST FRNIEEVRRT TTTFLRRIP  
TLKIRVASKK EVFEANLKTE CDLWHLMVKE MWAGKKLADD HKDPHYVQQA LTNVLLMDAV  
VGTLSQSPGAI YAASKLSYFD KMSNEMPMTL PETTLETLKH KINPSAGEAF PQAQVDVLLYT  
PGHLDPAEKV EDAHPKLWCA LSEGKVTVFN ASSWTIHQHS FKVGTAKVNC MVMADQNQVW  
VGSEDSVIYI INVHSMSCNK QLTACSSVT DLIVQDGQEA PSNVYSCSMD GMVLVWNVST  
LQVTSRFQLP RGGLTSIRLH GGRLWCCTGN SIMVMKMNGS LHQELKIEEN FKDTSTSFLA  
FQLLPEEEQL WAACAGRSEV YIWSLKDLAQ PPQRVPLEDC SEINCMIRVK KQVWVGSRGL  
GQGTPKGKIY VIDAERKTVE KELVAHMDTV RTLCSAEDRY VLSGSGREEG KVAIWKGE

**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!

## Product Details

### Concentration:

- 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: DENND3

Alternative Name: DENND3 ([DENND3 Products](#))

Background: DENN domain-containing protein 3, FUNCTION: Guanine nucleotide exchange factor (GEF) activating RAB12. Promotes the exchange of GDP to GTP, converting inactive GDP-bound RAB12 into its active GTP-bound form (PubMed:20937701). Regulates autophagy in response to starvation through RAB12 activation. Starvation leads to ULK1/2-dependent phosphorylation of Ser-472 and Ser-490, which in turn allows recruitment of 14-3-3 adapter proteins and leads to up-regulation of GEF activity towards RAB12 (By similarity). Also plays a role in protein transport from recycling endosomes to lysosomes, regulating, for instance, the degradation of the transferrin receptor and of the amino acid transporter PAT4 (PubMed:20937701). Starvation also induces phosphorylation at Tyr-858, which leads to up-regulated GEF activity and initiates autophagy (By similarity). {ECO:0000250|UniProtKB:A2RT67, ECO:0000269|PubMed:20937701}.

Molecular Weight: 135.9 kDa

UniProt: [A2RUS2](#)

## 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

Application Details

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.<br>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b> |
| Handling Advice: | Avoid repeated freeze-thaw cycles.   |
| Storage:         | -80 °C   |
| Storage Comment: | Store at -80°C.  |
| Expiry Date:     | 12 months  |