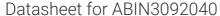
# antibodies .- online.com





# Dynactin 1 Protein (DCTN1) (AA 1-1278) (Strep Tag)



**Image** 



#### Overview

| Quantity:                     | 1 mg  |
|-------------------------------|---|
| Target:                       | Dynactin 1 (DCTN1)                                  |
| Protein Characteristics:      | AA 1-1278   |
| Origin:                       | Human   |
| Source:                       | Tobacco (Nicotiana tabacum)                         |
| Protein Type:                 | Recombinant   |
| Purification tag / Conjugate: | This Dynactin 1 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)        |

#### **Product Details**

Sequence:

MAQSKRHVYS RTPSGSRMSA EASARPLRVG SRVEVIGKGH RGTVAYVGAT LFATGKWVGV ILDEAKGKND GTVQGRKYFT CDEGHGIFVR QSQIQVFEDG ADTTSPETPD SSASKVLKRE GTDTTAKTSK LRGLKPKKAP TARKTTTRRP KPTRPASTGV AGASSSLGPS GSASAGELSS SEPSTPAQTP LAAPIIPTPV LTSPGAVPPL PSPSKEEEGL RAQVRDLEEK LETLRLKRAE DKAKLKELEK HKIQLEQVQE WKSKMQEQQA DLQRRLKEAR KEAKEALEAK ERYMEEMADT ADAIEMATLD KEMAEERAES LQQEVEALKE RVDELTTDLE ILKAEIEEKG SDGAASSYQL KQLEEQNARL KDALVRMRDL SSSEKQEHVK LQKLMEKKNQ ELEVVRQQRE RLQEELSQAE STIDELKEQV DAALGAEEMV EMLTDRNLNL EEKVRELRET VGDLEAMNEM NDELQENARE TELELREQLD MAGARVREAQ KRVEAAQETV ADYQQTIKKY RQLTAHLQDV NRELTNQQEA SVERQQQPPP ETFDFKIKFA ETKAHAKAIE MELRQMEVAQ ANRHMSLLTA FMPDSFLRPG GDHDCVLVLL LMPRLICKAE LIRKQAQEKF ELSENCSERP GLRGAAGEQL SFAAGLVYSL SLLQATLHRY EHALSQCSVD VYKKVGSLYP EMSAHERSLD FLIELLHKDQ LDETVNVEPL

TKAIKYYQHL YSIHLAEQPE DCTMQLADHI KFTQSALDCM SVEVGRLRAF LQGGQEATDI ALLLRDLETS CSDIRQFCKK IRRRMPGTDA PGIPAALAFG PQVSDTLLDC RKHLTWVVAV LQEVAAAAAQ LIAPLAENEG LLVAALEELA FKASEQIYGT PSSSPYECLR QSCNILISTM NKLATAMQEG EYDAERPPSK PPPVELRAAA LRAEITDAEG LGLKLEDRET VIKELKKSLK IKGEELSEAN VRLSLLEKKL DSAAKDADER IEKVQTRLEE TQALLRKKEK EFEETMDALQ ADIDQLEAEK AELKQRLNSQ SKRTIEGLRG PPPSGIATLV SGIAGEEQQR GAIPGQAPGS VPGPGLVKDS PLLLQQISAM RLHISQLQHE NSILKGAQMK ASLASLPPLH VAKLSHEGPG SELPAGALYR KTSQLLETLN QLSTHTHVVD ITRTSPAAKS PSAQLMEQVA QLKSLSDTVE KLKDEVLKET VSQRPGATVP TDFATFPSSA FLRAKEEQQD DTVYMGKVTF SCAAGFGQRH RLVLTQEQLH QLHSRLIS

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.
- 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:

>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:           | Dynactin 1 (DCTN1)  |
|-------------------|---|
| Alternative Name: | DCTN1 (DCTN1 Products)  |
| Background:       | Dynactin subunit 1 (150 kDa dynein-associated polypeptide) (DAP-150) (DP-150) (p135) (p150-glued), FUNCTION: Part of the dynactin complex that activates the molecular motor dynein for |
|                   | ultra-processive transport along microtubules (By similarity). Plays a key role in dynein-  |

glued),FUNCTION: Part of the dynactin complex that activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity). Plays a key role in dynein-mediated retrograde transport of vesicles and organelles along microtubules by recruiting and tethering dynein to microtubules. Binds to both dynein and microtubules providing a link between specific cargos, microtubules and dynein. Essential for targeting dynein to microtubule plus ends, recruiting dynein to membranous cargos and enhancing dynein processivity (the ability to move along a microtubule for a long distance without falling off the track). Can also act as a brake to slow the dynein motor during motility along the microtubule (PubMed:25185702). Can regulate microtubule stability by promoting microtubule formation, nucleation and polymerization and by inhibiting microtubule catastrophe in neurons. Inhibits

microtubule catastrophe by binding both to microtubules and to tubulin, leading to enhanced microtubule stability along the axon (PubMed:23874158). Plays a role in metaphase spindle orientation (PubMed:22327364). Plays a role in centriole cohesion and subdistal appendage organization and function. Its recruitment to the centriole in a KIF3A-dependent manner is essential for the maintenance of centriole cohesion and the formation of subdistal appendage. Also required for microtubule anchoring at the mother centriole (PubMed:23386061). Plays a role in primary cilia formation (PubMed:25774020). {ECO:0000250|UniProtKB:A0A287B8J2, ECO:0000269|PubMed:22327364, ECO:0000269|PubMed:23386061, ECO:0000269|PubMed:23874158, ECO:0000269|PubMed:25185702,

ECO:0000269|PubMed:25774020}.

Molecular Weight:

141.7 kDa

UniProt:

Q14203

Pathways:

M Phase, ER-Nucleus Signaling

## **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

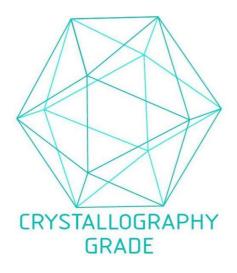
Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request,

## Handling

|                  | 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