

Datasheet for ABIN3092040

Dynactin 1 Protein (DCTN1) (AA 1-1278) (Strep Tag)[Go to Product page](#)**1** 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:	MAQSKRHHVYS RTPSGSRMSA EASARPLRVG SRVEVIGKGGH RGTVAIVYGAT LFATGKWVGV ILDEAKGKND GTVQGRKYFT CDEGHGIFVR QSQIQVFEDG ADTTSPETPD SSASKVLKRE GTDTTAKTSK LRGLKPKKAP TARKTTTRRP KPTRPASTGV AGASSSLGPS GSASAGELSS SEPSTPAQTP LAAPIPTPV LTSPGAVPPL PPSKKEEGL RAQVRDLEEK LETLRLKRAE DKAKLKELEK HKIQLEQVQE WSKMQEQQA DLQRRLEKAR KEAKEALEAK ERYMEEMADT ADAIEMATLD KEMAEERAES LQQEVEALKE RVDELTTDL ILKAEIEEK SDGAASSYQL KQLEEQNARL KDALVRMRDL SSSEKQEHVK LQKLMEKKNQ ELEVVRRQRE RLQEELSQA STIDELKEQV DAALGAEEMV EMLTDRNLNL EEKVRELRET VGDLEAMNEM NDELQENARE TELELRQLD MAGARVREAQ KRVEAAQETV ADYQQTIKKY RQLTAHLQDV NRELTNQQA SVERQQQPPP ETDFDKIKFA ETKAHAKAIE MELRQMEVAQ ANRHMSLLTA FMPDSFLRPG GDHDCVLVLL LMPRLICKAE LIRKQAQEF ELSNCSERP GLRGAAGEQL SFAAGLVYSL SLLQATLHRY EHALLQCSVD VYKKVGSLLP EMSAHERSLD FLIELLHKDQ LDETNNVEPL
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TKAIKYYQHL YSIHLAEQPE DCTMQLADHI KFTQSALDCM SVEVGRLRAF LGGGQEATDI
ALLLRDLETS CSDIRQFCKK IRRRMPGTDA PGIPAALAFG PQVSDTLLDC RKHLTWVVAV
LQEVAAAAAQ LIAPLAENEG LLVAALEELA FKASEQIYGT PSSSPYECLR QSCNILISTM
NKLATAMQEG EYDAERPPSK PPPVELRAAA LRAEITDAEG LGLKLEDRET VIKELKKSLLK
IKGEELSEAN VRLSLLEKKL DSAAKDADER IEKVQTRLEE TQALLRKKEK EFEETMDALQ
ADIDQLEAEK AELKQRLNSQ SKRTIEGLRG PPPSGIATLV SGIAGEEQQR GAIPGQAPGS
VPGPGLVKDS PLLLQQISAM RLHISQLQHE NSILKGAQMK ASLASLPLH VAKLSHEGPG
SELPAGALYR KTSQLETLN QLSTHTHVVD ITRTSPAAS PSAQLMEQVA QLKSLSDTVE
KLKDEVKLT VSQRPGATVP TDFATFPSSA FLRAKEEQD DTVYMGKVTF SCAAGFGQRH
RLVLTQEQHL 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 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 -

Product Details

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-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

Target Details

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.

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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