

Datasheet for ABIN3092106
DISC1 Protein (AA 1-854) (Strep Tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	DISC1
Protein Characteristics:	AA 1-854
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DISC1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MPGGGPQGAP AAAGGGGVSH RAGSRDCLPP AACFRRRRRLA RRPGYMRSST GPGIGFLSPA VGTLFRFP GG VSGEESHSE SRARQCGLDS RGLLVRSPVS KSAAAPT VTS VRG TSAHFGI QLRGGTRL PD RLSWPCGPGS AGWQQEFAAM DSSETLDASW EAACSDGARR VRAAGSLPSA ELSSNSCSPG CGPEVPPTPP GSHSAFTSSF SFIRLSLGSA GERGEAEGCP PSREAESH CQ SPQEMGAKAA SLDGPHEDPR CLSRPFSLLA TRVSADLAQA ARNSSRPERD MHS LPDMDPG SSSSLDPSLA GCGGDGSSGS GDAHSWDTLL RKWEPVLRDC LLNRNRQMEV ISRLKLQKL QEDAVENDDY DKAETLQQR L EDLEQEKISL HFQLPSRQPA LSSFLGHLAA QVQAALRGA TQQASGDDTH TPLRMEPRLL EPTAQDSLHV SITRRDWLLQ EKQQLQKEIE ALQARMFVLE AKDQQLRREI EEQEQLQWQ GCDLTPLVGQ LSLGQLQEV S KALQDTLASA GQIPFHA EPP ETIRSLQERI KSLNLSLKEI TTKVCMSEKF CSTLRKKVND IETQLPALLE AKMHAISGNH FWTAKDLTEE IRS L TSEREG LEGLLSKLLV LSSRN VKKL G SVKEDYNRLR REVEHQETAY ETSVKENTMK YMETLKNKLC SCKCP LLGKV WEADLEACRL LIQSLQLQEA RGSLSVEDER
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QMDDLEGAAP PIPPRHLHSED KRKTPLKVLE EWKTHLIPSL HCAGGEQKEE SYILSAELGE
KCEDIGKKLL YLEDQLHTAI HSHDEDLIQS LRRELQMVKE TLQAMILQLQ PAKEAGEREA
AASCMTAGVH EAQA

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 - 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.

Product Details

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:	DISC1
Alternative Name:	DISC1 (DISC1 Products)
Background:	Disrupted in schizophrenia 1 protein,FUNCTION: Involved in the regulation of multiple aspects of embryonic and adult neurogenesis (PubMed:19502360, PubMed:19303846). Required for neural progenitor proliferation in the ventricular/subventricular zone during embryonic brain development and in the adult dentate gyrus of the hippocampus (By similarity). Participates in the Wnt-mediated neural progenitor proliferation as a positive regulator by modulating GSK3B activity and CTNNB1 abundance (PubMed:19303846). Plays a role as a modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including neuron positioning, dendritic development and synapse formation (By similarity). Inhibits the activation of AKT-mTOR signaling upon interaction with CCDC88A (By similarity). Regulates the migration of early-born granule cell precursors toward the dentate gyrus during the hippocampal development (PubMed:19502360). Inhibits ATF4 transcription factor activity in neurons by disrupting ATF4 dimerization and DNA-binding (By similarity). Plays a role, together with PCNT, in the microtubule network formation (PubMed:18955030). {ECO:0000250 UniProtKB:Q811T9, ECO:0000269 PubMed:18955030, ECO:0000269 PubMed:19303846, ECO:0000269 PubMed:19502360}.
Molecular Weight:	93.6 kDa
UniProt:	Q9NRI5
Pathways:	Regulation of Cell Size

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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Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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Restrictions:	For Research Use only
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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)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process