Datasheet for ABIN3137391

DACH1 Protein (AA 1-751) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	DACH1
Protein Characteristics:	AA 1-751
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DACH1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MAVPAALIPP TQLVPPQPPI STSASSSGTT TSTSSATSSP APSIGPPASS GPTLFRPEPI ASSASSSAAA TVTSPGGGGG GSGGGGGSGG NGGGGGSNCN PSLAAGSSGG GVSAGGGGAS STPITASTGS SSSSSSSSSS SSSSSSSSSS SSSSSSCGPL PGKPVYSTPS PVENTPQNNE CKMVDLRGAK VASFTVEGCE LICLPQAFDL FLKHLVGGLH TVYTKLKRLE ITPVVCNVEQ VRILRGLGAI QPGVNRCKLI SRKDFETLYN DCTNASSRPG RPPKRTQSVT SPENSHIMPH SVPGLMSPGI IPPTGLTAAA AAAAAATNAA IAEAMKVKKI KLEAMSNYHA SNNQHGADSE NGDMNSSVGS SGGSWDKETL HSPPSQGSQA PVAHARMPAA FSLPVSHPLN HLQHSHLPPN GLELPFMMMP HPLIPVSLPP ASVTMAMSQM NHLSTIANMA AAAQVQSPPS RVETSVIKER VPDSPSPAPS LEEGRRPGSH PSSHRSSSVS SSPARTESSS DRIPVHQNGL SMNQMLMGLS PNVLPGPKEG DLAGHDMGHE SKRIHIEKDE TPLSTPTARD SIDKLSLTGH GQPLPPGFPS PFLFPDGLSS IETLLTNIQG LLKVAIDNAR AQEKQVQLEK TELKMDFLRE RELRETLEKQ LAMEQKNRAI VQKRLKKEKK AKRKLQEALE FETKRREQAE QTLKQAASAD SLRVLNDSLT

PEIEADRSGG RADAERTIQD GRLYLKTTVM Y

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.

Purification: Two step purification of proteins expressed in Almost Living Cell-Free Expression System

Product Details

	(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)

Target Details

Target:	DACH1
Alternative Name:	Dach1 (DACH1 Products)
Background:	Dachshund homolog 1 (Dach1),FUNCTION: Transcription factor that is involved in regulation of organogenesis. Seems to be a regulator of SIX1, SIX6 and probably SIX5. Corepression of precursor cell proliferation in myoblasts by SIX1 is switched to coactivation through recruitment of EYA3 to the SIX1-DACH1 complex. Transcriptional activation seems also to involve association of CREBBP. Seems to act as a corepressor of SIX6 in regulating proliferation by directly repressing cyclin-dependent kinase inhibitors, including the p27Kip1 promoter. Inhibits TGF-beta signaling through interaction with SMAD4 and NCOR1 (By similarity). Binds to chromatin DNA via its DACHbox-N domain. {ECO:0000250, ECO:0000269|PubMed:12130660, ECO:0000269|PubMed:12215533, ECO:0000269|PubMed:14628042}.
Molecular Weight:	78.0 kDa
UniProt:	Q9QYB2
Pathways:	Feeding Behaviour

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

Application Details

	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, 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)