

# Datasheet for ABIN3119407

# DAGLA Protein (AA 1-1042) (Strep Tag)



## Overview

Quantity:	250 μg
Target:	DAGLA
Protein Characteristics:	AA 1-1042
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DAGLA protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details	
Brand:	AliCE®
Sequence:	MPGIVVFRRR WSVGSDDLVL PAIFLFLLHT TWFVILSVVL FGLVYNPHEA CSLNLVDHGR
	GYLGILLSCM IAEMAIIWLS MRGGILYTEP RDSMQYVLYV RLAILVIEFI YAIVGIVWLT
	QYYTSCNDLT AKNVTLGMVV CNWVVILSVC ITVLCVFDPT GRTFVKLRAT KRRQRNLRTY
	NLRHRLEEGQ ATSWSRRLKV FLCCTRTKDS QSDAYSEIAY LFAEFFRDLD IVPSDIIAGL
	VLLRQRQRAK RNAVLDEANN DILAFLSGMP VTRNTKYLDL KNSQEMLRYK EVCYYMLFAL
	AAYGWPMYLM RKPACGLCQL ARSCSCCLCP ARPRFAPGVT IEEDNCCGCN AIAIRRHFLD
	ENMTAVDIVY TSCHDAVYET PFYVAVDHDK KKVVISIRGT LSPKDALTDL TGDAERLPVE
	GHHGTWLGHK GMVLSAEYIK KKLEQEMVLS QAFGRDLGRG TKHYGLIVVG HSLGAGTAAI
	LSFLLRPQYP TLKCFAYSPP GGLLSEDAME YSKEFVTAVV LGKDLVPRIG LSQLEGFRRQ
	LLDVLQRSTK PKWRIIVGAT KCIPKSELPE EVEVTTLAST RLWTHPSDLT IALSASTPLY
	PPGRIIHVVH NHPAEQCCCC EQEEPTYFAI WGDNKAFNEV IISPAMLHEH LPYVVMEGLN

KVLENYNKGK TALLSAAKVM VSPTEVDLTP ELIFQQQPLP TGPPMPTGLA LELPTADHRN SSVRSKSQSE MSLEGFSEGR LLSPVVAAAA RQDPVELLLL STQERLAAEL QARRAPLATM ESLSDTESLY SFDSRRSSGF RSIRGSPSLH AVLERDEGHL FYIDPAIPEE NPSLSSRTEL LAADSLSKHS QDTQPLEAAL GSGGVTPERP PSAAANDEEE EVGGGGGGPA SRGELALHNG RLGDSPSPQV LEFAEFIDSL FNLDSKSSSF QDLYCMVVPE SPTSDYAEGP KSPSQQEILL RAQFEPNLVP KPPRLFAGSA DPSSGISLSP SFPLSSSGEL MDLTPTGLSS QECLAADKIR TSTPTGHGAS PAKQDELVIS AR

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 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 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.

**Product Details** • 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: **DAGLA** Alternative Name: DAGLA (DAGLA Products) Background: Diacylglycerol lipase-alpha (DAGL-alpha) (DGL-alpha) (EC 3.1.1.116) (Neural stem cell-derived dendrite regulator) (Sn1-specific diacylglycerol lipase alpha),FUNCTION: Serine hydrolase that hydrolyzes arachidonic acid-esterified diacylglycerols (DAGs) to produce the principal endocannabinoid, 2-arachidonoylglycerol (2-AG) (PubMed:14610053, PubMed:26668358, PubMed:23502535). Preferentially hydrolyzes sn-1 fatty acids from diacylglycerols (DAG) that contain arachidonic acid (AA) esterified at the sn-2 position to biosynthesize 2-AG (PubMed:14610053, PubMed:26668358, PubMed:23502535). Has negligible activity against other lipids including monoacylglycerols and phospholipids (PubMed:14610053). Plays a key role in regulating 2-AG signaling in the central nervous system (CNS). Regulates 2-AG involved in retrograde suppression at central synapses. Supports axonal growth during development and adult neurogenesis. Plays a role for eCB signaling in the physiological regulation of anxiety and depressive behaviors. Regulates also neuroinflammatory responses in the brain, in particular, LPS-induced microglial activation (By similarity). {ECO:0000250|UniProtKB:Q6WQJ1, ECO:0000269|PubMed:14610053, ECO:0000269|PubMed:23502535, ECO:0000269|PubMed:26668358}. Molecular Weight: 115.0 kDa

UniProt: Q9Y4D2

## **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

### **Application Details**

Handling Advice:

Storage Comment:

Storage:

Expiry Date:

Application Details	
	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.
	Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.

Avoid repeated freeze-thaw cycles.

-80 °C

Store at -80°C.

12 months