Datasheet for ABIN3135499

DLG4 Protein (AA 1-724) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	DLG4
Protein Characteristics:	AA 1-724
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DLG4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MDCLCIVTTK KYRYQDEDTP PLEHSPAHLP NQANSPPVIV NTDTLEAPGY ELQVNGTEGE MEYEEITLER GNSGLGFSIA GGTDNPHIGD DPSIFITKII PGGAAAQDGR LRVNDSILFV NEVDVREVTH SAAVEALKEA GSIVRLYVMR RKPPAEKIIE IKLIKGPKGL GFSIAGGVGN QHIPGDNSIY VTKIIEGGAA HKDGRLQIGD KILAVNSVGL EDVMHEDAVA ALKNTYDVVY LKVAKPSNAY LSDSYAPPDI TTSYSQHLDN EISHSSYLGT DYPTAMTPTS PRRYSPVAKD LLGEEDIPRE PRRIVIHRGS TGLGFNIVGG EDGEGIFISF ILAGGPADLS GELRKGDQIL SVNGVDLRNA SHEQAAIALK NAGQTVTIIA QYKPEEYSRF EAKIHDLREQ LMNSSLGSGT ASLRSNPKRG FYIRALFDYD KTKDCGFLSQ ALSFHFGDVL HVIDASDEEW WQARRVHSDS ETDDIGFIPS KRRVERREWS RLKAKDWGSS SGSQGREDSV LSYETVTQME VHYARPIIIL GPTKDRANDD LLSEFPDKFG SCVPHTTRPK REYEIDGRDY HFVSSREKME KDIQAHKFIE AGQYNSHLYG TSVQSVREVA EQGKHCILDV SANAVRRLQA AHLHPIAIFI RPRSLENVLE

	INKRITEEQA RKAFDRATKL EQEFTECFSA IVEGDSFEEI YHKVKRVIED LSGPYIWVPA RERL **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 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 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®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	DLG4
Alternative Name:	Dlg4 (DLG4 Products)
Background:	Disks large homolog 4 (Postsynaptic density protein 95) (PSD-95) (Synapse-associated protein 90) (SAP-90) (SAP90),FUNCTION: Postsynaptic scaffolding protein that plays a critical role in synaptogenesis and synaptic plasticity by providing a platform for the postsynaptic clustering of crucial synaptic proteins (PubMed:15358775, PubMed:9853749). Interacts with the cytoplasmic tail of NMDA receptor subunits and shaker-type potassium channels. Required for synaptic plasticity associated with NMDA receptor signaling. Overexpression or depletion of DLG4 changes the ratio of excitatory to inhibitory synapses in hippocampal neurons. May reduce the amplitude of ASIC3 acid-evoked currents by retaining the channel intracellularly. May regulate the intracellular trafficking of ADR1B. Also regulates AMPA-type glutamate receptor (AMPAR) immobilization at postsynaptic density keeping the channels in an activated state in the presence of glutamate and preventing synaptic depression (Probable). Under basal conditions, cooperates with FYN to stabilize palmitoyltransferase ZDHHC5 at the synaptic membrane through FYN-mediated phosphorylation of ZDHHC5 and its subsequent inhibition of association with endocytic proteins (By similarity). {ECO:0000250|UniProtKB:P78352, ECO:0000269|PubMed:15358775, ECO:0000269|PubMed:9853749, ECO:0000305|PubMed:26931375, ECO:0000305|PubMed:29199957}.
Molecular Weight:	80.5 kDa
UniProt:	Q62108
Pathways:	Regulation of Muscle Cell Differentiation, Synaptic Membrane, Skeletal Muscle Fiber Development, Asymmetric Protein Localization, Regulation of long-term Neuronal Synaptic Plasticity

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.

Application Details

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.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months