Datasheet for ABIN3133355

PKC eta Protein (AA 1-683) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PKC eta (PRKCH)
Protein Characteristics:	AA 1-683
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PKC eta protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MSSGTMKFNG YLRVRIGEAV GLQPTRWSLR HSLFKKGHQL LDPYLTVSVD QVRVGQTSTK QKTNKPTYNE EFCANVTDGG HLELAVFHET PLGYDHFVAN CTLQFQELLR TAGTSDTFEG WVDLEPEGKV FVVITLTGSF TEATLQRDRI FKHFTRKRQR AMRRRVHQVN GHKFMATYLR QPTYCSHCRE FIWGVFGKQG YQCQVCTCVV HKRCHHLIVT ACTCQNNINK VDAKIAEQRF GINIPHKFNV HNYKVPTFCD HCGSLLWGIM RQGLQCKICK MNVHIRCQAN VAPNCGVNAV ELAKTLAGMG LQPGNISPTS KLISRSTLRR QGKEGSKEGN GIGVNSSSRF GIDNFEFIRV LGKGSFGKVM LARIKETGEL YAVKVLKKDV ILQDDDVECT MTEKRILSLA RNHPFLTQLF CCFQTPDRLF FVMEFVNGGD LMFHIQKSRR FDEARARFYA AEIISALMFL HEKGIIYRDL KLDNVLLDHE GHCKLADFGM CKEGICNGVT TATFCGTPDY IAPEILQEML YGPAVDWWAM GVLLYEMLCG HAPFEAENED DLFEAILNDE VVYPTWLHED ATGILKSFMT KNPTMRLGSL TQGGEHEILR HPFFKEIDWA QLNHRQLEPP FRPRIKSRED VSNFDPDFIK EEPVLTPIDE

	GHLPMINQDE FRNFSYVSPE LQL **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:	PKC eta (PRKCH)
Alternative Name:	Prkch (PRKCH Products)
Background:	Protein kinase C eta type (EC 2.7.11.13) (PKC-L) (nPKC-eta),FUNCTION: Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that is involved in the regulation of cell differentiation in keratinocytes and pre-B cell receptor, mediates regulation of epithelial tight junction integrity and foam cell formation, and is required for glioblastoma proliferation and apoptosis prevention in MCF-7 cells. In keratinocytes, binds and activates the tyrosine kinase FYN, which in turn blocks epidermal growth factor receptor (EGFR) signaling and leads to keratinocyte growth arrest and differentiation. Associates with the cyclin CCNE1-CDK2-CDKN1B complex and inhibits CDK2 kinase activity, leading to RB1 dephosphorylation and thereby G1 arrest in keratinocytes. In association with RALA activates actin depolymerization, which is necessary for keratinocyte differentiation. In the pre-B cell receptor signaling, functions downstream of BLNK by up-regulating IRF4, which in turn activates L chain gene rearrangement. Regulates epithelial tight junctions (TJs) by phosphorylating occludin (OCLN) on threonine residues, which is necessary for the assembly and maintenance of TJs. In association with PLD2 and via TLR4 signaling, is involved in lipopolysaccharide (LPS)-induced RGS2 down-regulation and foam cell formation. Upon PMA stimulation, mediates glioblastoma cell proliferation by activating the mTOR pathway, the PI3K/AKT pathway and the ERK1-dependent phosphorylation of ELK1. Involved in the protection of glioblastoma cells from irradiation-induced apoptosis by preventing caspase-9 activation. In camptothecin-treated MCF-7 cells, regulates NF-kappa-B upstream signaling by activating IKBKB, and confers protection against DNA damage-induced apoptosis. Promotes oncogenic functions of ATF2 in the nucleus while blocking its apoptotic function at mitochondria. Phosphorylates ATF2 which promotes its nuclear retention and transcriptional activity and negatively regulates its mitochondrial localization. {ECO:0000269|PubMed:11106751, ECO:0000269|PubMed:18780722, ECO:0000269|PubMed:21346190}.
Molecular Weight:	77.9 kDa
UniProt:	P23298

Target Details

Pathways:	Myometrial Relaxation and Contraction, Thromboxane A2 Receptor 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.
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

