Datasheet for ABIN3090763

CCAR2 Protein (AA 1-923) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	CCAR2
Protein Characteristics:	AA 1-923
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CCAR2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MSQFKRQRIN PLPGGRNFSG TASTSLLGPP PGLLTPPVAT ELSQNARHLQ GGEKQRVFTG IVTSLHDYFG VVDEEVFFQL SVVKGRLPQL GEKVLVKAAY NPGQAVPWNA VKVQTLSNQP LLKSPAPPLL HVAALGQKQG ILGAQPQLIF QPHRIPPLFP QKPLSLFQTS HTLHLSHLNR FPARGPHGRL DQGRSDDYDS KKRKQRAGGE PWGAKKPRHD LPPYRVHLTP YTVDSPICDF LELQRRYRSL LVPSDFLSVH LSWLSAFPLS QPFSLHHPSR IQVSSEKEAA PDAGAEPITA DSDPAYSSKV LLLSSPGLEE LYRCCMLFVD DMAEPRETPE HPLKQIKFLL GRKEEEAVLV GGEWSPSLDG LDPQADPQVL VRTAIRCAQA QTGIDLSGCT KWWRFAEFQY LQPGPPRRLQ TVVVYLPDVW TIMPTLEEWE ALCQQKAAEA APPTQEAQGE TEPTEQAPDA LEQAADTSRR NAETPEATTQ QETDTDLPEA PPPPLEPAVI ARPGCVNLSL HGIVEDRRPK ERISFEVMVL AELFLEMLQR DFGYRVYKML LSLPEKVVSP PEPEKEEAAK EEATKEEEAI KEEVVKEPKD EAQNEGPATE SEAPLKEDGL LPKPLSSGGE EEEKPRGEAS EDLCEMALDP ELLLLRDDGE

EEFAGAKLED SEVRSVASNQ SEMEFSSLQD MPKELDPSAV LPLDCLLAFV FFDANWCGYL HRRDLERILL TLGIRLSAEQ AKQLVSRVVT QNICQYRSLQ YSRQEGLDGG LPEEVLFGNL DLLPPPGKST KPGAAPTEHK ALVSHNGSLI NVGSLLQRAE QQDSGRLYLE NKIHTLELKL EESHNRFSAT EVTNKTLAAE MQELRVRLAE AEETARTAER QKSQLQRLLQ ELRRRLTPLQ LEIQRVVEKA DSWVEKEEPA PSN

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.

Product Details

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:	CCAR2
Alternative Name:	CCAR2 (CCAR2 Products)
Background:	Cell cycle and apoptosis regulator protein 2 (Cell division cycle and apoptosis regulator protein 2) (DBIRD complex subunit KIAA1967) (Deleted in breast cancer gene 1 protein) (DBC-1) (DBC.1) (NET35) (p30 DBC),FUNCTION: Core component of the DBIRD complex, a multiprotein complex that acts at the interface between core mRNP particles and RNA polymerase II (RNAPII) and integrates transcript elongation with the regulation of alternative splicing: the DBIRD complex affects local transcript elongation rates and alternative splicing of a large set of exons embedded in (A + T)-rich DNA regions (PubMed:22446626). Inhibits SIRT1 deacetylase activity leading to increasing levels of p53/TP53 acetylation and p53-mediated apoptosis (PubMed:18235501, PubMed:18235502, PubMed:23352644). Inhibits SUV39H1 methyltransferase activity (PubMed:19218236). Mediates ligand-dependent transcriptional activation by nuclear hormone receptors (PubMed:19131338). Plays a critical role in maintaining genomic stability and cellular integrity following UV-induced genotoxic stress (PubMed:23398316). Regulates the circadian expression of the core clock components NR1D1 and BMAL1 (PubMed:23398316). Enhances the transcriptional repressor activity of NR1D1 through stabilization of NR1D1 protein levels by preventing its ubiquitination and subsequent degradation (PubMed:23398316). Represses the ligand-dependent transcriptional activation function of ESR2 (PubMed:20074560). Acts as a regulator of PCK1 expression and gluconeogenesis by a mechanism that involves, at least in part, both NR1D1 and SIRT1 (PubMed:24415752). Negatively regulates the deacetylase activity of HDAC3 and can alter its subcellular localization (PubMed:21030595). Positively regulates the beta-catenin pathway (canonical Wnt signaling pathway) and is required for MCC-mediated repression of the beta-catenin pathway (PubMed:24824780). Represses ligand-dependent transcriptional activation function of NR1H2 and NR1H3 and inhibits the interaction of SIRT1 with NR1H3 (PubMed:25661920). Plays an important role in tumor suppression through p53/TP53

Target Details

	regulation, stabilizes p53/TP53 by affecting its interaction with ubiquitin ligase MDM2 (PubMed:25732823). Represses the transcriptional activator activity of BRCA1 (PubMed:20160719). Inhibits SIRT1 in a CHEK2 and PSEM3-dependent manner and inhibits the activity of CHEK2 in vitro (PubMed:25361978). {ECO:0000269|PubMed:18235501, ECO:0000269|PubMed:18235502, ECO:0000269|PubMed:19131338, ECO:0000269|PubMed:19218236, ECO:0000269|PubMed:20074560, ECO:0000269|PubMed:20160719, ECO:0000269|PubMed:21030595, ECO:0000269|PubMed:22446626, ECO:0000269|PubMed:23352644, ECO:0000269|PubMed:23398316, ECO:0000269|PubMed:24415752, ECO:0000269|PubMed:24824780, ECO:0000269|PubMed:25361978, ECO:0000269|PubMed:25661920, ECO:0000269|PubMed:25732823}.
Molecular Weight:	102.9 kDa
UniProt:	Q8N163

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.

Handling

	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