

## Datasheet for ABIN3136725 CCAR2 Protein (AA 1-922) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	CCAR2
Protein Characteristics:	AA 1-922
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CCAR2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

#### Product Details

Sequence:	<p>MSQFKRQRIN PLPGGRNFSG AASTSLLGPP PGLLTPPVAT DLSQNARHLQ SGEKQRVFTG</p> <p>IVTSLHDYFG VVDEEVFFQL SVVKGRLPQL GEKVLVKAAY NPGQAVPWNA VKVQTLNQP</p> <p>LLKSPAPPLL HVAALGQKQG ILGAQQLIF QPHRIPPLFP QKPLSLFQTS HTLHLSHLNR</p> <p>FPARGPHGRL DQGRSDDYDS KKRKQRAGGE PWGAKKPRHD LSPYRVHLTP YTVDSPTCDF</p> <p>LELQRRYRSL LVPSDFLSVH LSWLSAFPLG QPFSLHPSR IQVSSEKEAA PDTGAEPSPE</p> <p>DSDPTYSSKV LLLSSPGLLE FYRCCMLFVD DMAEPRETPE HPLKQLKFL GRKEEEAVLV</p> <p>GGEWSPSLDG LDPQADPQVL VRTAIRCAQA QTGIDLSTCT KWWRFQAEFY LQPGPPRQLH</p> <p>TVVVYLPDVW TIMPTLEWE ALCQQKATEA APQPHEASGE AEATEQAPDV SEQADTSKQN</p> <p>TETMEATTQQ DVDTDLPEAP PPPLEPAVMA RPRCVNLSLY GIVEDRRPKE RISFEVVLA</p> <p>ELFVEMLRD FGYRIYKTL SLPEKVVSP EPEKEEAAKE DAVKEEEAVK EEA VKVSKDE</p> <p>VQNEGTAES DSPLKEDGLL PKRPSSGGEE EEKARGEAAE DLCEMALDPD LLLLRDDGED</p> <p>EFAGAKLEET EVRSVASNQS EMEYSSLQDM PKELDPSTVL PLDCLLAFVF FDANWCGYLH</p>
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RRDLERVLLT LGIRLSAEQA KQLVSRVVAQ NICQYRSLQY SRAEVLDDGL PEDVLFGNLD  
LLPPSGKSTK PGAAPTEHKG LVPHNGSLIN VGSLLQRAEQ QDSGRLYLEN KIHTLELKLE  
ESHNRFSATE VTNKTLAAEM QELRARLAEA EETARTAERQ KNQLQRQMQD FRRRLTPLHL  
EMQRIVEKAD SWVEKEEPTP SN

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Ccar2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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## Product Details

Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

## Target Details

Target:	CCAR2
Alternative Name:	Ccar2 ( <a href="#">CCAR2 Products</a> )
Background:	<p>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. Inhibits SIRT1 deacetylase activity leading to increasing levels of p53/TP53 acetylation and p53-mediated apoptosis (By similarity). As part of a histone H3-specific methyltransferase complex may mediate ligand-dependent transcriptional activation by nuclear hormone receptors (By similarity). Inhibits SUV39H1 methyltransferase activity. Plays a critical role in maintaining genomic stability and cellular integrity following UV-induced genotoxic stress (By similarity) Regulates the circadian expression of the core clock components NR1D1 and ARNTL/BMAL1. Enhances the transcriptional repressor activity of NR1D1 through stabilization of NR1D1 protein levels by preventing its ubiquitination and subsequent degradation. 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). Plays an important role in tumor suppression through p53/TP53 regulation, stabilizes p53/TP53 by affecting its interaction with ubiquitin ligase MDM2 (PubMed:25732823). Represses the ligand-dependent transcriptional activation function of ESR2. Positively regulates the beta-catenin pathway (canonical Wnt signaling pathway) and is required for MCC-mediated repression of the beta-catenin pathway. Represses ligand-dependent transcriptional activation function of NR1H2 and NR1H3 and inhibits the interaction of SIRT1 with NR1H3. Represses the transcriptional activator activity of BRCA1. Inhibits SIRT1 in a CHEK2 and PSEM3-dependent manner and inhibits the activity of CHEK2 in vitro (By similarity). {ECO:0000250 UniProtKB:Q8N163, ECO:0000269 PubMed:23398316}.</p>
Molecular Weight:	104.0 kDa Including tag.
UniProt:	<a href="#">Q8VDP4</a>

## 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:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process