

Datasheet for ABIN3114499

**SREBF chaperone Protein (SCAP) (AA 1-1279) (rho-1D4 tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	SREBF chaperone (SCAP)
Protein Characteristics:	AA 1-1279
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SREBF chaperone protein is labelled with rho-1D4 tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Sequence:	MTLTERLREK ISRAFYNHGL LCASYPIPII LFTGFCILAC CYPLKLP LP GTGPVEFTTP VKDYSPPPVD SDRKQGEPT QPEWYVGAPV AYVQIQIFVKS SVFPWHKNLL AVDVFRSPLS RAFQLVEEIR NHVLRDSSGI RSLEELCLQV TDLLPGLRKL RNLLPEHGCL LLSPGNFWQN DWERFHADPD IIGTIHQHEP KTLQTSATLK DLLFGVPGKY SGVSLYTRKR MVSYTITLVF QHYHAKFLGS LRARLMLLHP SPNCSLRAES LVHVFKEEI GVAELIPLVT TYIILFAYIY FSTRKIDMVK SKWGLALAAV VTLSSLLMS VGLCTLFGLT PTLNGGEIFP YLVVVIGLEN VLVLT KSVVS TPVDLEV KLR IAQGLSSES SIMKNMATEL GIILIGYFTL VPAIQEFCLF AVVGLVSDFF LQMLFFTTVL SIDIRRMELA DLNKRLPPEA CLPSAKPVGQ PTRYERQLAV RPSTPHTITL QPSSFRNLRL PKRLRVVYFL ARTRLAQR LI MAGTVVWIGI LVTDPAGLR NYLAAQVTEQ SPLGEGALAP MPVPSGMLPP SHPDPAFSIF PPDAPKLPEN QTSPGESPER GGPAEVVHDS PVPEVTWGPE DEELWRKLSF RHWPTLFSYY NITLAKRYIS LLPVIPVTLR LNPREALAGR HPQDGRSAWP PPGPIAGHW EAGPKGPGGV QAHGDVTLYK VAALGLATGI
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VLVLLLLCLY RVLCPRNYGQ LGGGPGRRRR GELPCDDYGY APPETEIVPL VLRGHLMDIE  
CLASDGMLLV SCCLAGHVCV WDAQTDGCLT RIPRPGRRR DSGVGSGLEA QESWERLSDG  
GKAGPEEPGD SPPLRHRPRG PPPPSLFGDQ PDLTCLIDTN FSAQPRSSQP TQPEPRHRAV  
CGRSRDSPGY DFSCLVQRVY QEEGLAAVCT PALRPPSPGP VLSQAPEDEG GSPEKGSPSL  
AWAPSAEGSI WSLELQGNLI VVGRSSGRLE VWDAIEGVLC CSSEEVSSGI TALVFLDKRI  
VAARLNGSLD FFSLEHTAL SPLQFRGTPG RGSSPASPVY SSSDTVACHL THTVPCAHQK  
PITALKAAAG RLVGTGSQDHT LRVFRLEDSC CLFTLQGHSG AITTVIIDQT MVLASGGQDG  
AICLWDVLTG SRVSHVFAHR GDVTSLTCTT SCVISSGLDD LISIWRSTG IKFYSIQQDL  
GCGASLGVIS DNLLVTGGQG CVSFWDLNYG DLLQTVYLGK NSEAQPARQI LVLDAIAVC  
NFGSELSLVY VPSVLEKLD

**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.
- Human SCAP 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:

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

## Product Details

1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

## Target Details

Target: SREBF chaperone (SCAP)

Alternative Name: SCAP ([SCAP Products](#))

Background: Escort protein required for cholesterol as well as lipid homeostasis. Regulates export of the SCAP/SREBF complex from the ER upon low cholesterol. Formation of a ternary complex with INSIG at high sterol concentrations leads to masking of an ER-export signal in SCAP and retention of the complex in the ER. Low sterol concentrations trigger release of INSIG, a conformational change in the SSC domain of SCAP, unmasking of the ER export signal, recruitment into COPII-coated vesicles, transport to the Golgi complex, proteolytic cleavage of SREBF in the Golgi, release of the transcription factor fragment of SREBF from the membrane, its import into the nucleus and up-regulation of LDLR, INSIG1 and the mevalonate pathway (By similarity). {ECO:0000250}.

Molecular Weight: 140.9 kDa Including tag.

UniProt: [Q12770](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

## 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: 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