

Datasheet for ABIN3118027

ABCG4 Protein (AA 1-646) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	ABCG4
Protein Characteristics:	AA 1-646
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABCG4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MAEKALEAVG CGLGPGAVAM AVTLEDGAEP PVLTTHLKKV ENHITEAQRF SHLPKRSAVD</p> <p>IEFVELSYSV REGPCWRKRG YKTLKCLSG KFCRRELIGI MGPSGAGKST FMNILAGYRE</p> <p>SGMKGQILVN GRPRELRTFR KMSCYIMQDD MLLPHLTVLE AMMVSANLKL SEKQEVKKEL</p> <p>VTEILTALGL MSCSHTRTAL LSGGQQRKRLA IALELVNNPP VMFFDEPTSG LDSASCFQVV</p> <p>SLMKSLAQGG RTIICTIHQP SAKLFEMFDK LYILSQGQCI FKGVVTNLIP YLKGLGLHCP</p> <p>TYHNPADFII EVASGEYGD LNPMLFRAVQN GLCAMAEEKS SPEKNEVPAP CPPCPPEVDP</p> <p>IESHTFATST LTQFCILFKR TFLSILRDTV LTHLRFMSHV VIGVLIGLLY LHIGDDASKV</p> <p>FNNTGCLFFS MLFLMFAALM PTVLTFPLEM AVFMREHLNY WYSLKAYYLA KTMADVPFQV</p> <p>VCPVYCSIV YWMTGQPAET SRLLFSALA TATALVAQSL GLLIGAASNS LQVATFVGPV</p> <p>TAIPVLLFSG FFVSFKTIPT YLQWSSYLSY VRYGFEGVIL TIYGMERGD L TCLEERCPFR</p> <p>EPQSILRALD VEDAKLYMDF LVLGIFFLAL RLLAYLVRLY RVKSER</p>

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®).

Purity:

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

Product Details

Grade: custom-made

Target Details

Target: ABCG4

Alternative Name: ABCG4 ([ABCG4 Products](#))

Background: ATP-binding cassette sub-family G member 4 (EC 7.6.2.-),FUNCTION: ATP-dependent transporter of the ATP-binding cassette (ABC) family that may be involved in the cellular efflux of sterols, in particular cholesterol and desmosterol (a cholesterol precursor), to high-density lipoprotein (HDL) (PubMed:15240127, PubMed:33141061). May play an important role in the removal of amyloid-beta peptides from brain, in a process that can be antagonized by desmosterol. However it is unclear whether ABCG4 can directly transport amyloid-beta peptides or whether peptide export may be facilitated due to changes in the membrane lipid environment (By similarity). Induces apoptosis in various cells (PubMed:27228027). {ECO:0000250|UniProtKB:Q91WA9, ECO:0000269|PubMed:15240127, ECO:0000269|PubMed:27228027, ECO:0000269|PubMed:33141061}.

Molecular Weight: 71.9 kDa

UniProt: [Q9H172](#)

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.

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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