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Datasheet for ABIN3130858

## BRCAA1 Protein (AA 1-1314) (Strep Tag)

### Overview

Quantity:	1 mg
Target:	BRCAA1 (ARID4B)
Protein Characteristics:	AA 1-1314
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BRCAA1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Sequence:	<p>MKALDEPPYL TVGTDVSAKY RGAFCEAKIK TAKRLVKVKV TFRHDSSTVE VQDDHIKGPL</p> <p>KVGAIVEVKN LDGAYQEAVI NKLTDASWYT VFDDGDEKT LRRSSLCLKG ERHFAESETL</p> <p>DQLPLTNPEH FGTPVIGKKT NRGRRSNHIP EESSSSSSSD DDEEERKQTD ELLGKVVQVD</p> <p>YVSLEKKKAM WFPALVPCPD CSDEIAVKKD NILVRSFKDG KFTSVPRKDV HEITSDTVPK</p> <p>PDAVLKQAFD QALEFHKSRA IPANWKTELK EDSSSSSEAE EEEEEDEKE KEDNSSEEEE</p> <p>EIEPFPEERE NFLQQLYKFM EDGRTPINKR PVLGYRNLNL FKLFRLVHKL GGFDNIESGA</p> <p>VWKQVYQDLG IPVLNSAAGY NVKCAKKYL YGFEEYCRSA NIDFQMALPE KVLNKPCKDC</p> <p>ENKEVKVKEE SETEIKEVNV EDSKNVMPKE ETPAEDESER KENIKPSLGS KKSLLCIPA</p> <p>QSDEEKEAHI TKLEENENLE DKDGGGARTE EAFSTEVDGE EEQARSGDET NKEEDEDDEE</p> <p>IEEEEEDEE EDEDEDDDDN NEEEFECYP PGMKVQVRYG RGKNQKMYEA SIKDSDVEGG</p> <p>EALYLVHYCG WNVRYDEWIK ADKIVRPADK NVPKIKHRKK IKNKLDKEKD RDEKYSPKNC</p> <p>KLRRLSKSPF QSNPSPMVVS KLDLADAKNS DTAHIKSIEI TSILNGLQAS ESSAEDSEQE</p>
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DERCTQDVND IKGDESKVEH STHSRNELIS KEEQSSPSLL EENKVHTDLV IAKTVSKSPE  
RLRKDMEAIS EDTDFEEDE ITKKRKDVKK DTTDKALKPQ TCRGKRRYCS ADECLQTGSP  
GKKEDRTKSK EPLCTENSSN SSSDEDEEEK SKAKMTPTKK YNGLEEKRS LRTTSFYSGF  
SEVAEKRIKL LNNSDERLQN NRAKDRKDVW SSIQGQWPKK TLKELFSDSD TEAAASPPHP  
APDEGAVEES LQTVAAEEESC SPIMELEKPL PASVDNKPIE EKPLEVSDRK TEFSSGSNS  
VLNTPPTTPE SPSSVTITEA SQQQSSVTVS VPLPPNQEEV RSIKSETDST IEVDSVVGEL  
QDLQSEGNSS PAGFDASVSS SSSNQPEPDN PEKACTGQKR VKDTQGVGSS SKKQKRSHKA  
TVVNNKKKGK GTNSSDSEEL SAGESVTKTQ TIKSVPTGMK THNSKSPARV QSPGKGGRNG  
DKDPLKEPS NRLPKVYKWS FQTSLENMT SAERISILQE KLQEIRKHYL SLKSEVASID  
RRRKRLKKKE RESAATSSSS SSPSSSSITA AVMLTLAEPSS MSSASQNGMS VECR

**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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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 -

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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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):  1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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.
Purity:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	BRCA1 (ARID4B)
Alternative Name:	Arid4b (ARID4B Products)
Background:	AT-rich interactive domain-containing protein 4B (ARID domain-containing protein 4B) (180 kDa Sin3-associated polypeptide) (Sin3-associated polypeptide p180) (Histone deacetylase complex subunit SAP180),FUNCTION: Acts as a transcriptional repressor. May function in the assembly and/or enzymatic activity of the Sin3A corepressor complex or in mediating interactions between the complex and other regulatory complexes (By similarity). Plays a role in the regulation of epigenetic modifications at the PWS/AS imprinting center near the SNRPN promoter, where it might function as part of a complex with RB1 and ARID4A (PubMed:17043311). Involved in spermatogenesis, together with ARID4A, where it functions as a transcriptional coactivator for AR (androgen receptor) and enhances expression of genes required for sperm maturation. Regulates expression of the tight junction protein CLDN3 in the testis, which is important for integrity of the blood-testis barrier (PubMed:23487765). Plays a

## Target Details

role in myeloid homeostasis where it regulates the histone methylation state of bone marrow cells and expression of various genes involved in hematopoiesis. May function as a leukemia suppressor (PubMed:18728284). {ECO:0000250|UniProtKB:Q4LE39, ECO:0000269|PubMed:17043311, ECO:0000269|PubMed:18728284, ECO:0000269|PubMed:23487765}.

Molecular Weight: 147.6 kDa

UniProt: [A2CG63](#)

## 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. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)