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# BAZ1B Protein (AA 1-1483) (Strep Tag)



**Image** 



## Overview

Quantity:	1 mg
Target:	BAZ1B
Protein Characteristics:	AA 1-1483
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BAZ1B protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

# **Product Details**

Sequence:

MAPLLGRKPF PLVKPLPGEE PLFTIPHTQE AFRTREEYEA RLERYSERIW TCKSTGSSQL
THKEAWEEEQ EVAELLKEEF PAWYEKLVLE MVHHNTASLE KLVDTAWLEI MTKYAVGEEC
DFEVGKEKML KVKIVKIHPL EKVDEEATEK KSDGACDSPS SDKENSSQIA QDHQKKETVV
KEDEGRRESI NDRARRSPRK LPTSLKKGER KWAPPKFLPH KYDVKLQNED KIISNVPADS
LIRTERPPNK EIVRYFIRHN ALRAGTGENA PWVVEDELVK KYSLPSKFSD FLLDPYKYMT
LNPSTKRKNT GSPDRKPSKK SKTDNSSLSS PLNPKLWCHV HLKKSLSGSP LKVKNSKNSK
SPEEHLEEMM KMMSPNKLHT NFHIPKKGPP AKKPGKHSDK PLKAKGRSKG ILNGQKSTGN
SKSPKKGLKT PKTKMKQMTL LDMAKGTQKM TRAPRNSGGT PRTSSKPHKH LPPAALHLIA
YYKENKDRED KRSALSCVIS KTARLLSSED RARLPEELRS LVQKRYELLE HKKRWASMSE
EQRKEYLKKK REELKKKLKE KAKERREKEM LERLEKQKRY EDQELTGKNL PAFRLVDTPE
GLPNTLFGDV AMVVEFLSCY SGLLLPDAQY PITAVSLMEA LSADKGGFLY LNRVLVILLQ
TLLQDEIAED YGELGMKLSE IPLTLHSVSE LVRLCLRRSD VQEESEGSDT DDNKDSAAFE

DNEVQDEFLE KLETSEFFEL TSEEKLQILT ALCHRILMTY SVQDHMETRQ QMSAELWKER
LAVLKEENDK KRAEKQKRKE MEAKNKENGK VENGLGKTDR KKEIVKFEPQ VDTEAEDMIS
AVKSRRLLAI QAKKEREIQE REMKVKLERQ AEEERIRKHK AAAEKAFQEG IAKAKLVMRR
TPIGTDRNHN RYWLFSDEVP GLFIEKGWVH DSIDYRFNHH CKDHTVSGDE DYCPRSKKAN
LGKNASMNTQ HGTATEVAVE TTTPKQGQNL WFLCDSQKEL DELLNCLHPQ GIRESQLKER
LEKRYQDIIH SIHLARKPNL GLKSCDGNQE LLNFLRSDLI EVATRLQKGG LGYVEETSEF
EARVISLEKL KDFGECVIAL QASVIKKFLQ GFMAPKQKRR KLQSEDSAKT EEVDEEKKMV
EEAKVASALE KWKTAIREAQ TFSRMHVLLG MLDACIKWDM SAENARCKVC RKKGEDDKLI
LCDECNKAFH LFCLRPALYE VPDGEWQCPA CQPATARRNS RGRNYTEESA SEDSEDDESD
EEEEEEEEEE EEEDYEVAGL RLRPRKTIRG KHSVIPPAAR SGRRPGKKPH STRRSQPKAP
PVDDAEVDEL VLQTKRSSRR QSLELQKCEE ILHKIVKYRF SWPFREPVTR DEAEDYYDVI
THPMDFQTVQ NKCSCGSYRS VQEFLTDMKQ VFTNAEVYNC RGSHVLSCMV KTEQCLVALL
HKHLPGHPYV RRKRKKFPDR LAEDEGDSEP EAVGQSRGRR QKK

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 posttranslational 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 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.
- 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:

BAZ1B

Alternative Name:

BAZ1B (BAZ1B Products)

# Background:

Tyrosine-protein kinase BAZ1B (EC 2.7.10.2) (Bromodomain adjacent to zinc finger domain protein 1B) (Williams syndrome transcription factor) (Williams-Beuren syndrome chromosomal region 10 protein) (Williams-Beuren syndrome chromosomal region 9 protein) (hWALp2),FUNCTION: Atypical tyrosine-protein kinase that plays a central role in chromatin remodeling and acts as a transcription regulator (PubMed:19092802). Involved in DNA damage response by phosphorylating 'Tyr-142' of histone H2AX (H2AXY142ph) (PubMed:19092802, PubMed:19234442). H2AXY142ph plays a central role in DNA repair and acts as a mark that distinguishes between apoptotic and repair responses to genotoxic stress (PubMed:19092802,

PubMed:19234442). Regulatory subunit of the ATP-dependent WICH-1 and WICH-5 ISWI chromatin remodeling complexes, which form ordered nucleosome arrays on chromatin and facilitate access to DNA during DNA-templated processes such as DNA replication, transcription, and repair (PubMed:11980720, PubMed:28801535). Both complexes regulate the spacing of nucleosomes along the chromatin and have the ability to slide mononucleosomes to the center of a DNA template (PubMed:28801535). The WICH-1 ISWI chromatin remodeling complex has a lower ATP hydrolysis rate than the WICH-5 ISWI chromatin remodeling complex (PubMed:28801535). The WICH-5 ISWI chromatin-remodeling complex regulates the transcription of various genes, has a role in RNA polymerase I transcription (By similarity). Within the B-WICH complex has a role in RNA polymerase III transcription (PubMed:16603771). Mediates the recruitment of the WICH-5 ISWI chromatin remodeling complex to replication foci during DNA replication (PubMed:15543136). {ECO:0000250|UniProtKB:Q9Z277, ECO:0000269|PubMed:11980720, ECO:0000269|PubMed:15543136, ECO:0000269|PubMed:19234442, ECO:0000269|PubMed:19092802, ECO:0000269|PubMed:19234442, ECO:0000269|PubMed:28801535}.

Molecular Weight:

170.9 kDa

UniProt:

Q9UIG0

Pathways:

Nuclear Hormone Receptor Binding, Chromatin Binding

# **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:

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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)

# Images



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