

Datasheet for ABIN3089889

BHLHE41 Protein (AA 1-482) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	BHLHE41
Protein Characteristics:	AA 1-482
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BHLHE41 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MDEGIPHLQE RQLLEHRDFI GLDYSSLYMC KPKRSMKRDD TKDITYKLPHR LIEKKRRDRI NECIAQLKDL LPEHLKLTTL GHLEKAVVLE LTLKHLKALT ALTEQQHQKI IALQNGERSL KSPIQSDLDA FHSGFQTCAK EVLQYLSRFE SWTPREPRCV QLINHLHAVA TQFLPTPQLL TQQVPLSKGT GAPSAAGSAA APCLERAGQK LEPLAYCVPV IQRTQPSAEL AAENDTDTDS GYGGAEARP DREKGGKAGA SRVTIKQEPP GEDSPAPKRM KLDSRGGGSG GPGGGGAAAA AAALLGPDPA AAAALLRPDA ALLSSLVAFG GGGGAPFPQP AAAAAPFCLP FCFLSPSAAA AYVQPFLDKS GLEKYLYPAA AAAPFLLYP GIPAPAAAAA AAAAAAAAAA AFPCLSVLS PPPEKAGAAA ATLLPHEVAP LGAPHPQHPH GRTHLPFAGP REPGNPRESSA QEDPSQPGKE AP</p> <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.</p>
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Characteristics:	Key Benefits:
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- 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 - 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.

Product Details

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:	BHLHE41
Alternative Name:	BHLHE41 (BHLHE41 Products)
Background:	<p>Class E basic helix-loop-helix protein 41 (bHLHe41) (Class B basic helix-loop-helix protein 3) (bHLHb3) (Differentially expressed in chondrocytes protein 2) (hDEC2) (Enhancer-of-split and hairy-related protein 1) (SHARP-1),FUNCTION: Transcriptional repressor involved in the regulation of the circadian rhythm by negatively regulating the activity of the clock genes and clock-controlled genes (PubMed:11278948, PubMed:14672706, PubMed:15193144, PubMed:15560782, PubMed:18411297, PubMed:19786558, PubMed:25083013). Acts as the negative limb of a novel autoregulatory feedback loop (DEC loop) which differs from the one formed by the PER and CRY transcriptional repressors (PER/CRY loop). Both these loops are interlocked as it represses the expression of PER1 and in turn is repressed by PER1/2 and CRY1/2. Represses the activity of the circadian transcriptional activator: CLOCK-BMAL1 heterodimer by competing for the binding to E-box elements (5'-CACGTG-3') found within the promoters of its target genes (PubMed:25083013). Negatively regulates its own expression and the expression of DBP and BHLHE41/DEC2. Acts as a corepressor of RXR and the RXR-LXR heterodimers and represses the ligand-induced RXRA/B/G, NR1H3/LXRA, NR1H4 and VDR transactivation activity. Inhibits HNF1A-mediated transactivation of CYP1A2, CYP2E1 AND CYP3A11 (By similarity). {ECO:0000250 UniProtKB:Q99PV5, ECO:0000269 PubMed:11278948, ECO:0000269 PubMed:14672706, ECO:0000269 PubMed:15193144, ECO:0000269 PubMed:15560782, ECO:0000269 PubMed:18411297, ECO:0000269 PubMed:19786558, ECO:0000269 PubMed:25083013}.</p>
Molecular Weight:	50.5 kDa
UniProt:	Q9C0J9
Pathways:	Regulation of Muscle Cell Differentiation, Skeletal Muscle Fiber Development

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
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Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment:

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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)



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