

Datasheet for ABIN3137011

BHLHE41 Protein (AA 1-410) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	BHLHE41
Protein Characteristics:	AA 1-410
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This BHLHE41 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence: MDEGIPHLQE RQLLEHRDFI GLDYSSLYMC KPKRSLKRDD TKDITYKLPHR LIEKKRRDRI
NECIAQLKDL LPEHLKLTTL GHLEKAVVLE LTLKHLKALT ALTEQQHQKI IALQNGERSL
KSPVQADLDA FHSGFQTC AK EVLQYLARFE SWTPREPRCA QLVSHLHAVA TQLLTPQVPS
GRGSGRAPCS AGAAAASGPE RVARCVPIQ RTQPGTEPEH DTD TDSGYGG EAEQGRAAVK
QEPPGDSSPA PKRPKLEARG ALLGPEPALL GSLVALGGGA PFAQPAAPF CLPFYLLSPS
AAAYVQPWLD KSGLDKYLYP AAAAPFPLLY PGIPAAAAA AAAAFPCLSS VLSPPPEKAG
ATAGAPFLAH EVAPPGPLRP QHAHSRTHLP RAVNPESSQE DATQPAKDAP

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Mouse Bhlhe41 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

- 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.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:	>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:	BHLHE41
Alternative Name:	Bhlhe41 (BHLHE41 Products)

Target Details

Background: Transcriptional repressor involved in the regulation of the circadian rhythm by negatively regulating the activity of the clock genes and clock-controlled genes. 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-ARNTL/BMAL1 heterodimer by competing for the binding to E-box elements (5'-CACGTG-3') found within the promoters of its target genes. 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. {ECO:0000269|PubMed:12397359, ECO:0000269|PubMed:14672706, ECO:0000269|PubMed:18411297, ECO:0000269|PubMed:19786558, ECO:0000269|PubMed:24736997}.

Molecular Weight: 44.9 kDa Including tag.

UniProt: [Q99PV5](#)

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

Comment: Protein has not been tested for activity yet. 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

Handling

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