

## **BHLH3 Antibody (N-term)**

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8715b

## **Specification**

## **BHLH3 Antibody (N-term) - Product Information**

Application WB,E
Primary Accession Q9C0J9

Reactivity
Predicted
Human, Mouse, Rat
Host
Human, Mouse, Rat
Mouse

Clonality monoclonal Isotype IgG2b, K
Calculated MW 50498

## **BHLH3 Antibody (N-term) - Additional Information**

### **Gene ID** 79365

# **Other Names**

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, BHLHE41, BHLHB3, DEC2, SHARP1

### **Target/Specificity**

This BHLH3 antibody is generated from a mouse immunized with a recombinant protein of human BHLH3.

### **Dilution**

WB~~1:4000

E~~Use at an assay dependent concentration.

#### **Format**

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

BHLH3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# **BHLH3 Antibody (N-term) - Protein Information**

Name BHLHE41 (HGNC:16617)



Tel: 858.875.1900 Fax: 858.875.1999

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).

#### **Cellular Location**

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00380, ECO:0000255|PROSITE-ProRule:PRU00981}

#### **Tissue Location**

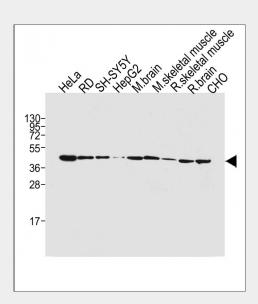
Highly expressed in skeletal muscle and brain, moderately expressed in pancreas and heart, weakly expressed in placenta, lung, liver and kidney

## BHLH3 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## BHLH3 Antibody (N-term) - Images



All lanes: Anti-BHLH3 Antibody (N-term) at 1:4000 dilution Lane 1: HeLa whole cell lysate Lane 2:



RD whole cell lysate Lane 3: SH-SY5Y whole cell lysate Lane 4: HepG2 whole cell lysate Lane 5: Mouse brain tissue lysate Lane 6: Mouse skeletal muscle tissue lysate Lane 7: Rat skeletal muscle tissue lysate Lane 8: Rat brain tissue lysate Lane 9: CHO whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

## BHLH3 Antibody (N-term) - 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.

## **BHLH3 Antibody (N-term) - References**

Fujimoto K., et al. Biochem. Biophys. Res. Commun. 280:164-171(2001). Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Garriga-Canut M., et al. J. Biol. Chem. 276:14821-14828(2001). Kawamoto T., et al. Biochem. Biophys. Res. Commun. 313:117-124(2004). Li Y., et al. Biochem. J. 382:895-904(2004).