

**BHLH3 Antibody (N-term)**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM8715b**

## Specification

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

Application	WB,E
Primary Accession	<a href="#">O9C0J9</a>
Reactivity	Human, Mouse, Rat
Predicted	Human, Mouse, Rat
Host	Mouse
Clonality	monoclonal
Isotype	IgG2b, $\kappa$
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

#### 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](#))

**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

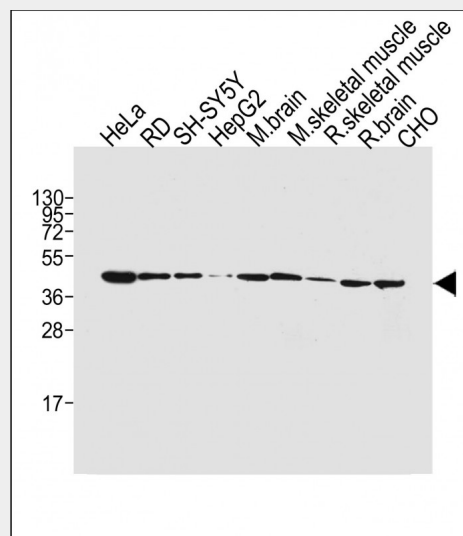
Highly expressed in skeletal muscle and brain, moderately expressed in pancreas and heart, weakly expressed in placenta, lung, liver and kidney

#### 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](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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).