10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BHLH3 Antibody (N-term)

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8715b

Product Information

Application	WB, E
Primary Accession	Q9C0J9
Reactivity	Human, Mouse, Rat
Predicted	Human, Mouse, Rat
Host	Mouse
Clonality	monoclonal
Isotype	IgG2b,κ
Clone Names	2135CT82.1.84
Calculated MW	50498

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.

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

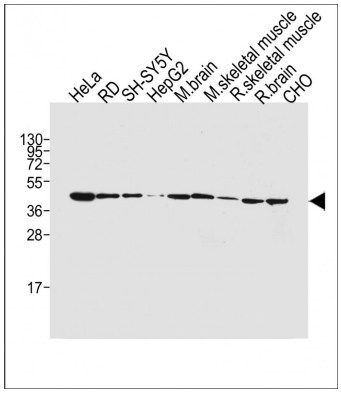
Background

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.

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).

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.