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BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31)

Rabbit Polyclonal Antibody
Catalog # ALS15919

Specification

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - Product Information

Application	**WB**
Primary Accession	Q9C0J9
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**50kDa KDa**

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - 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
Human BHLHE41 / BHLHB3

Reconstitution & Storage
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.

Precautions
BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) is for research use only and not for use in diagnostic or therapeutic procedures.

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - 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

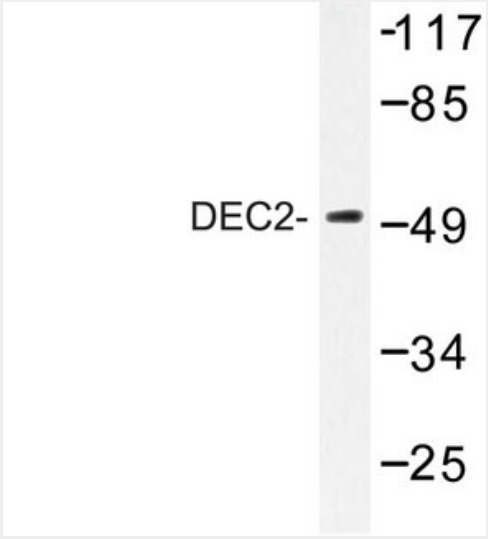
Volume
100 µl

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - Images



Western blot of DEC2 (K31) pAb in extracts from RAW264.7 cells.

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - 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.

BHLHE41 / BHLHB3 / SHARP1 Antibody (Lys31) - 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).