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BHLHE40 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP10647a

Specification

BHLHE40 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	O14503
Other Accession	NP_003661.1

BHLHE40 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 8553

Other Names
Class E basic helix-loop-helix protein 40, bHLHe40, Class B basic helix-loop-helix protein 2, bHLHb2, Differentially expressed in chondrocytes protein 1, DEC1, Enhancer-of-split and hairy-related protein 2, SHARP-2, Stimulated by retinoic acid gene 13 protein, BHLHE40, BHLHB2, DEC1, SHARP2, STRA13

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BHLHE40 Antibody (N-term) Blocking Peptide - Protein Information

Name BHLHE40

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:12397359, PubMed:18411297). 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) (PubMed:14672706). Both these loops are interlocked as it represses the expression of PER1/2 and in turn is repressed by PER1/2 and CRY1/2 (PubMed:15193144). Represses the activity of the circadian transcriptional activator: CLOCK-BMAL1|BMAL2 heterodimer by competing for the binding to E-box elements (5'-CACGTG-3') found within the promoters of its target genes (PubMed:15560782). Negatively regulates its own expression and the expression of DBP and BHLHE41/DEC2 (PubMed:<a

href="http://www.uniprot.org/citations/14672706" target="_blank">14672706). Acts as a corepressor of RXR and the RXR-LXR heterodimers and represses the ligand-induced RXRA and NR1H3/LXRA transactivation activity (PubMed:19786558). May be involved in the regulation of chondrocyte differentiation via the cAMP pathway (PubMed:19786558). Represses the transcription of NR0B2 and attentuates the transactivation of NR0B2 by the CLOCK-BMAL1 complex (PubMed:28797635). Drives the circadian rhythm of blood pressure through transcriptional repression of ATP1B1 in the cardiovascular system (PubMed:30012868).

Cellular Location
Cytoplasm. Nucleus. Note=Predominantly localized in the nucleus (PubMed:11278694).

Tissue Location
Expressed in cartilage, spleen, intestine, lung, and to a lesser extent in heart, brain, liver, muscle and stomach

BHLHE40 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

BHLHE40 Antibody (N-term) Blocking Peptide - Images

BHLHE40 Antibody (N-term) Blocking Peptide - Background

BHLHE40 encodes a basic helix-loop-helix proteinexpressed in various tissues. Expression in the chondrocytes isresponsive to the addition of Bt2cAMP. The encoded protein isbelieved to be involved in the control of cell differentiation.

BHLHE40 Antibody (N-term) Blocking Peptide - References

Wang, W., et al. Biochem. Biophys. Res. Commun. 401(3):422-428(2010)Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Soria, V., et al. Neuropsychopharmacology 35(6):1279-1289(2010)Utge, S.J., et al. PLoS ONE 5 (2), E9259 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)