Product Name: BMAL1 (Acetyl Lys538) Rabbit Polyclonal Antibody
Catalog #: APRab06175

Summary

Production Name	BMAL1 (Acetyl Lys538) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Acetyl Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ARNTL
Alternative Names	ARNTL; BHLHE5; BMAL1; MOP3; PASD3; Aryl hydrocarbon receptor nuclear translocator-like protein 1; Basic-helix-loop-helix-PAS protein MOP3Brain and muscle ARNT-like 1; Class E basic helix-loop-helix protein 5; bHLHe5; Member of PAS protein 3; PAS domain-containing protein 3; bHLH-PAS protein JAP3
Gene ID	406.0
SwissProt ID	O00327.The antiserum was produced against synthesized Acetyl-peptide derived from human BMAL1 around the Acetylation site of Lys538. AA range:501-550

Application

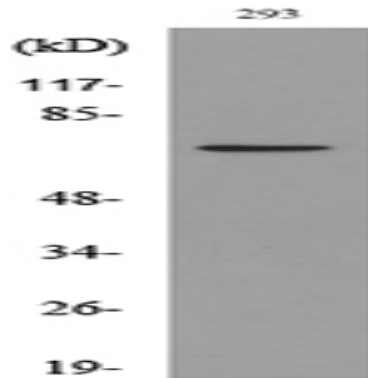|	
Dilution Ratio	WB 1:500-1:2000, ELISA 1:20000.Not yet tested in other applications.

Molecular Weight	70kDa

Background

The protein encoded by this gene is a basic helix-loop-helix protein that forms a heterodimer with CLOCK. This heterodimer binds E-box enhancer elements upstream of Period (PER1, PER2, PER3) and Cryptochrome (CRY1, CRY2) genes and activates transcription of these genes. PER and CRY proteins heterodimerize and repress their own transcription by interacting in a feedback loop with CLOCK/ARNTL complexes. Defects in this gene have been linked to infertility, problems with gluconeogenesis and lipogenesis, and altered sleep patterns. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2014],alternative products:Additional isoforms seem to exist,function:ARNTL-CLOCK heterodimers activate E-box element (3'-CACGTG-5') transcription of a number of proteins of the circadian clock. This transcription is inhibited in a feedback loop by PER, and also by CRY proteins.,miscellaneous:CLOCK-ARNTL double mutations within the PAS domains result in syngernistic desensitization to high levels of CRY on repression of CLOCK-ARNTL transcriptional activity of PER1 and, disrupt circadian rhythmicity.,PTM:Acetylated on Lys-538 upon dimerization with CLOCK. Acetylation facilitates CRY1-mediated repression.,PTM:Phosphorylated upon dimerization with CLOCK.,PTM:Sumoylated on Lys-259 upon dimerization with CLOCK.,similarity:Contains 1 basic helix-loop-helix (bHLH) domain.,similarity:Contains 1 PAC (PAS-associated C-terminal) domain.,similarity:Contains 2 PAS (PER-ARNT-SIM) domains.,subunit:Component of the circadian clock oscillator which includes the CRY proteins, CLOCK or NPAS2, ARNTL or ARNTL2, CSNK1D and/or CSNK1E, TIMELESS and the PER proteins. Efficient DNA binding requires dimerization with another bHLH protein. Heterodimerization with CLOCK is required for E-box-dependent transactivation, for CLOCK nuclear translocation and degradation, and, for phosphorylation of both CLOCK and ARNTL. Interaction with PER and CRY proteins requires translocation to the nucleus. Interaction of the CLOCK-ARNTL heterodimer with PER or CRY inhibits transcription activation. Interacts with HSP90; with AHR in vitro, but not in vivo.,tissue specificity:Highly expressed in the adult brain, skeletal muscle and heart.,
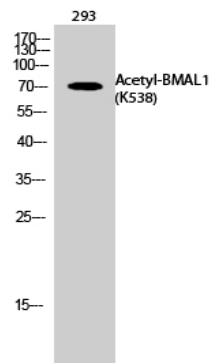
Research Area

Circadian rhythm;

Image Data

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Western blot analysis of lysate from 293 cells, using BMAL1   (Acetyl-Lys538)   Antibody.

Western Blot analysis of 293 cells using Acetyl-BMAL1   (K538)   Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

Note
For research use only.