SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-ARNTL2 antibody

Catalog Number: SL11446R

FOR RESEARCH USE ONLY

[DATASHEET]

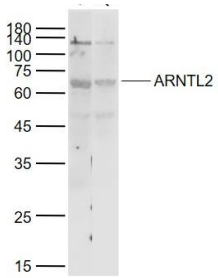
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	ARNTL2
Immunogen:	KLH conjugated synthetic peptide derived from human ARNTL2: 381-480/636
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse, Rat, (predicted: Human)
Predicted MW.:	71kDa
Subcellular Location:	The nucleus
Background:	BMAL2 is a 636 amino acid protein that localizes to the nucleus and contains one bHLH (basic helix-loop-helix) domain, one PAC (PAS-associated C-terminal) domain and two PAS (PER-ARNT-SIM) domains. Expressed at high levels in placenta and brain and at lower levels in liver, thymus, heart, lung and kidney, BMAL2 functions as a component of the circadian core oscillator, which includes a variety of proteins that work in tandem to activate the transcription of target genes. More specifically, BMAL2, when functioning as a component of the core oscillator, binds to the E-box element (3'-CACGTG-5') of target DNA, thus inducing transcription. Multiple isoforms of BMAL2 exist due to alternative splicing events. **Function:** ARNTL2 (aryl hydrocarbon receptor nuclear translocator-like 2) is a basic Helix-Loop-Helix-Per-Arnt-Sim (bHLH-PAS) transcription factor. ARNTL2-CLOCK heterodimers activate E-box element (3'-CACGTG-5') transcription. Also, in umbilical vein endothelial cells, ARNTL2 activates

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	SERPINE1 through E-box sites. This transactivation is inhibited by PER2 and CRY1. It may participate in circadian clock regulation **Subunit:** Component of the circadian core oscillator, which includes the CRY proteins, CLOCK, or NPAS2, ARNTL or ARNTL2, CSNK1D and/or CSNK1E, TIMELESS and the PER proteins. Interacts directly with CLOCK to form the ARNTL2-CLOCK transactivator. Can form heterodimers or homodimers which interact directly with CLOCK to form the transcription activator. Also interacts with NPAS2 and HIF1A. **Subcellular Location:** Nuclear **Tissue Specificity:** Expressed in fetal brain. Highly expressed in brain and placenta. Lower levels in heart, liver, thymus, kidney and lung. Located to endothelial cells and neuronal cells of the suprachiasmatic nucleus (SCN). Also detected in endothelial cells of the heart, lung and kidney. In the brain, specifically expressed in the thalamus, hippocampus and amygdala. **Similarity:** Contains 1 bHLH (basic helix-loop-helix) domain. Contains 1 PAC (PAS-associated C-terminal) domain. Contains 2 PAS (PER-ARNT-SIM) domains. **Database links:** **Entrez Gene:** 56938 Human **Entrez Gene:** 373925 Chicken **SwissProt:** Q8QGQ7 Chicken **SwissProt:** Q8WYA1 Human **Unigene:** 434269 Human

[VALIDATION IMAGES]



Sample:
Lane 1: Testis (Mouse) Lysate at 40 ug
Lane 2: Testis (Rat) Lysate at 40 ug
Primary: Anti-ARNTL2 (SL11446R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 71/63 kD
Observed band size: 65 kD

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