Datasheet for ABIN5518808

anti-ARNTL antibody (AA 58-156)

1 Image

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Overview

Quantity:	100 µg
Target:	ARNTL
Binding Specificity:	AA 58-156
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ARNTL antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS)

Product Details

Purpose:	Anti-BMAL1/ARNTL Antibody Picoband®
Immunogen:	E.coli-derived human BMAL1/ARNTL recombinant protein (Position: H58-D156). Human BMAL1/ARNTL shares 99% and 98% amino acid (aa) sequence identity with mouse and rat BMAL1/ARNTL, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-BMAL1/ARNTL Antibody Picoband® (ABIN5518808). Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification:	Immunogen affinity purified.

Target Details

Target:	ARNTL
Alternative Name:	ARNTL (ARNTL Products)
Background:	Synonyms: Aryl hydrocarbon receptor nuclear translocator-like protein 1,Basic-helix-loop-helix-PAS protein MOP3,Brain 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,ARNTL,BHLHE5, BMAL1, MOP3, PASD3, Tissue Specificity: Hair follicles (at protein level). Highly expressed in the adult brain, skeletal muscle and heart. . Background: Aryl hydrocarbon receptor nuclear translocator-like protein 1 is protein that in humans is encoded by the ARNTL gene. 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.
Molecular Weight:	75 kDa
Gene ID:	406
UniProt:	O00327
Pathways:	Regulation of Lipid Metabolism by PPARalpha, Protein targeting to Nucleus, Warburg Effect

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat Flow Cytometry(Fixed), 1-3 µg/1x10^6 cells, Human 1. Hatanaka F, Matsubara C, Myung J, Yoritaka T, Kamimura N, Tsutsumi S, Kanai A, Suzuki Y, Sassone-Corsi P, Aburatani H, Sugano S, Takumi T (Dec 2010). "Genome-wide profiling of the core clock protein BMAL1 targets reveals a strict relationship with metabolism". Molecular and Cellular Biology. 30 (24): 5636-5648. 2. Pappa KI, Gazouli M, Anastasiou E, Iliodromiti Z, Antsaklis A, Anagnou NP (Feb 2013). "The major circadian pacemaker ARNT-like protein-1

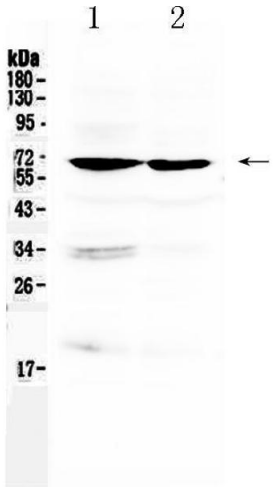
Application Details

	(BMAL1) is associated with susceptibility to gestational diabetes mellitus". Diabetes Research and Clinical Practice. 99 (2): 151-7. 3. Richards J, Diaz AN, Gumz ML (Oct 2014). "Clock genes in hypertension: novel insights from rodent models". Blood Pressure Monitoring. 19 (5): 249-54.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Images



Western Blotting

Image 1. Western blot analysis of BMAL1/ARNTL using anti- BMAL1/ARNTL antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: HELA whole Cell lysates, Lane 2: HEPG2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- BMAL1/ARNTL antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5

minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BMAL1/ARNTL at approximately 69KD. The expected band size for BMAL1/ARNTL is at 69KD.