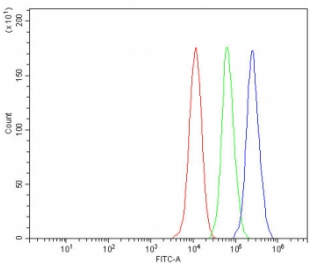
ARNTL Antibody / Aryl Hydrocarbon Receptor Nuclear Translocator Like Antibody (R32634)

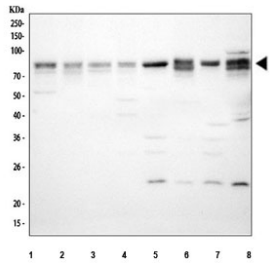
Catalog No.	Formulation	Size
R32634	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O00327
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This ARNTL antibody is available for research use only.



ARNTL Antibody Human MCF7 FACS. Flow cytometric analysis of fixed and permeabilized human MCF7 cells stained with ARNTL Antibody / Aryl Hydrocarbon Receptor Nuclear Translocator Like Antibody at 1 ug/million cells. Red: cells alone; Green: isotype control; Blue: ARNTL antibody. The clear rightward shift of the ARNTL antibody population demonstrates specific detection of endogenous ARNTL (BMAL1). This ARNTL Antibody, an Aryl Hydrocarbon Receptor Nuclear Translocator Like antibody, is suitable for flow cytometric studies of circadian transcription factor expression in human cells.



ARNTL Antibody Human, Rat and Mouse WB. Western blot analysis of ARNTL Antibody / Aryl Hydrocarbon Receptor Nuclear Translocator Like Antibody detected a major band at approximately 69 kDa, consistent with the predicted molecular weight of ARNTL. Lane 1: human HeLa; Lane 2: human HT-1080; Lane 3: human MCF7; Lane 4: human SH-SY5Y; Lane 5: rat brain; Lane 6: rat liver; Lane 7: mouse brain; Lane 8: mouse liver lysate. The membrane was incubated with ARNTL antibody followed by an HRP-conjugated secondary antibody. This ARNTL Antibody, an Aryl Hydrocarbon Receptor Nuclear Translocator Like antibody, detects endogenous ARNTL across human, rat and mouse samples for studies of circadian rhythm regulation and transcriptional control.

Description

ARNTL Antibody / Aryl Hydrocarbon Receptor Nuclear Translocator Like Antibody recognizes Aryl Hydrocarbon Receptor Nuclear Translocator Like (ARNTL), more commonly known as BMAL1, a basic helix-loop-helix PAS domain-containing transcription factor that serves as a core regulator of the mammalian circadian clock. ARNTL forms a heterodimer with CLOCK to activate transcription of numerous clock-controlled genes that regulate daily rhythms in metabolism, hormone production, immune responses and cellular physiology. Through this central role, ARNTL coordinates biological timing with environmental light-dark cycles and helps maintain homeostasis across multiple organ systems. NSJ Bioreagents provides ARNTL antibodies for researchers investigating circadian biology, transcriptional regulation and metabolic signaling.

ARNTL is expressed in a wide range of tissues and functions as an essential component of both central and peripheral molecular clocks. Its transcriptional activity regulates genes involved in sleep-wake cycles, glucose metabolism, lipid homeostasis, oxidative stress responses, DNA repair and cell proliferation. Disruption of ARNTL expression or circadian regulation has been associated with metabolic disease, cardiovascular disorders, neurodegeneration, inflammation and cancer. Because circadian timing influences nearly every physiological system, ARNTL has become an important research target in chronobiology, aging and disease biology.

Researchers frequently examine ARNTL expression to understand transcriptional networks that coordinate circadian rhythms and cellular homeostasis. Studies investigate interactions between ARNTL, CLOCK, PER and CRY proteins, along with additional transcriptional regulators that control rhythmic gene expression. Measuring ARNTL abundance and localization can provide valuable insight into biological timing, metabolic regulation, stem cell function and therapeutic strategies designed to restore circadian homeostasis.

An ARNTL Antibody is a valuable reagent for detecting this circadian transcription factor by Western blotting, immunohistochemistry, immunofluorescence, flow cytometry and related immunoassays. An Aryl Hydrocarbon Receptor Nuclear Translocator Like Antibody supports studies of circadian rhythm regulation, transcriptional control, metabolism and clock-dependent physiology.

For additional information on BMAL1 function, circadian clock regulation and transcriptional activity, visit our BMAL1 Antibody / Circadian Clock Protein Antibody page.

Application Notes

Optimal dilution of the ARNTL antibody should be determined by the researcher.

Immunogen

Amino acids H58-D156 from the human Aryl Hydrocarbon Receptor Nuclear Translocator Like protein were used as the immunogen for the ARNTL antibody.

Storage

After reconstitution, the ARNTL antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.

Alternate Names

ARNTL antibody, Aryl Hydrocarbon Receptor Nuclear Translocator Like antibody, BMAL1 antibody, Brain and Muscle ARNT-Like 1 antibody, BHLHE5 antibody, MOP3 antibody, JAP3 antibody, PASD3 antibody

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