

**ARNT2 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16544c****Specification**

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**ARNT2 Antibody (Center) - Product Information**

Application	IF, WB,E
Primary Accession	<a href="#">O9HBZ2</a>
Other Accession	<a href="#">Q78E60</a> , <a href="#">Q61324</a> , <a href="#">NP_055677.3</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	78691
Antigen Region	249-278

**ARNT2 Antibody (Center) - Additional Information****Gene ID** 9915**Other Names**

Aryl hydrocarbon receptor nuclear translocator 2, ARNT protein 2, Class E basic helix-loop-helix protein 1, bHLHe1, ARNT2, BHLHE1, KIAA0307

**Target/Specificity**

This ARNT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 249-278 amino acids from the Central region of human ARNT2.

**Dilution**

IF~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ARNT2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**ARNT2 Antibody (Center) - Protein Information**

**Name** ARNT2

**Synonyms** BHLHE1, KIAA0307

**Function** Transcription factor that plays a role in the development of the hypothalamo-pituitary axis, postnatal brain growth, and visual and renal function (PubMed:[24022475](#)). Specifically recognizes the xenobiotic response element (XRE).

**Cellular Location**

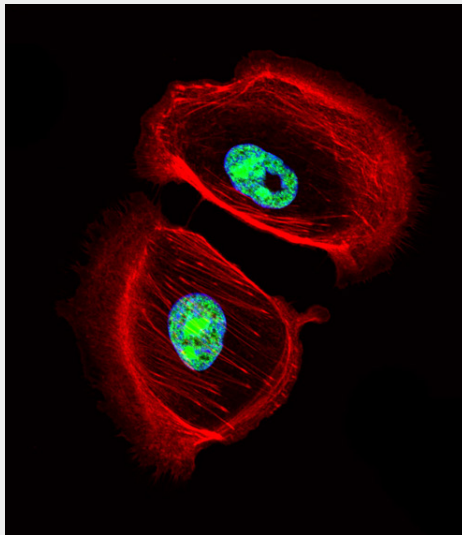
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981, ECO:0000269|PubMed:24465693}

### ARNT2 Antibody (Center) - Protocols

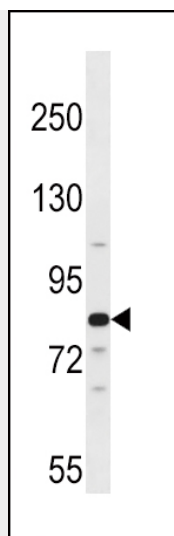
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### ARNT2 Antibody (Center) - Images



Fluorescent confocal image of SK-BR-3 cell stained with ARNT2 Antibody (Center)(Cat#AP16544c). SK-BR-3 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ARNT2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (10 µg/ml, 10 min). ARNT2 immunoreactivity is localized to nucleus significantly.



ARNT2 Antibody (Center) (Cat. #AP16544c) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the ARNT2 antibody detected the ARNT2 protein (arrow).

#### **ARNT2 Antibody (Center) - Background**

This gene encodes a member of the basic-helix-loop-helix-Per-Arnt-Sim (bHLH-PAS) superfamily of transcription factors. The encoded protein acts as a partner for several sensor proteins of the bHLH-PAS family, forming heterodimers with the sensor proteins that bind regulatory DNA sequences in genes responsive to developmental and environmental stimuli. Under hypoxic conditions, the encoded protein complexes with hypoxia-inducible factor 1alpha in the nucleus and this complex binds to hypoxia-responsive elements in enhancers and promoters of oxygen-responsive genes. A highly similar protein in mouse forms functional complexes with both aryl hydrocarbon receptors and Single-minded proteins, suggesting additional roles for the encoded protein in the metabolism of xenobiotic compounds and the regulation of neurogenesis, respectively.

#### **ARNT2 Antibody (Center) - References**

Ramirez, J.M., et al. Eur. J. Immunol. 40(9):2450-2459(2010)  
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :  
Chakrabarti, B., et al. Autism Res 2(3):157-177(2009)  
Ferreira, M.A., et al. Nat. Genet. 40(9):1056-1058(2008)  
Martinez, V., et al. Breast Cancer Res. Treat. 110(3):521-530(2008)