

**HIF-1  $\beta$ /ARNT Monoclonal Antibody(4C5)**  
Catalog # AP63712**Specification****HIF-1  $\beta$ /ARNT Monoclonal Antibody(4C5) - Product Information**

Application	WB
Primary Accession	<a href="#">P27540</a>
Reactivity	Mouse
Host	Mouse
Clonality	Monoclonal

**HIF-1  $\beta$ /ARNT Monoclonal Antibody(4C5) - Additional Information**

Gene ID 405

**Other Names**

ARNT; BHLHE2; Aryl hydrocarbon receptor nuclear translocator; ARNT protein; Class E basic helix-loop-helix protein 2; bHLHe2; Dioxin receptor, nuclear translocator; Hypoxia-inducible factor 1-beta; HIF-1-beta; HIF1-beta

**Dilution**

WB~~WB 1:1000-2000, IHC 1:100-200

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**HIF-1  $\beta$ /ARNT Monoclonal Antibody(4C5) - Protein Information**Name ARNT ([HGNC:700](#))

Synonyms BHLHE2

**Function**

Required for activity of the AHR. Upon ligand binding, AHR translocates into the nucleus, where it heterodimerizes with ARNT and induces transcription by binding to xenobiotic response elements (XRE). Not required for the ligand-binding subunit to translocate from the cytosol to the nucleus after ligand binding (PubMed:<a href="http://www.uniprot.org/citations/34521881" target="\_blank">34521881</a>). The complex initiates transcription of genes involved in the regulation of a variety of biological processes, including angiogenesis, hematopoiesis, drug and lipid metabolism, cell motility and immune modulation (Probable). The heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters and functions as a transcriptional regulator of the adaptive response to hypoxia (By similarity). The heterodimer ARNT:AHR binds to core DNA sequence 5'-TGCGTG-3' within the dioxin response element (DRE) of target gene promoters and activates their transcription (PubMed:<a href="http://www.uniprot.org/citations/28396409" target="\_blank">28396409</a>).

## Cellular Location

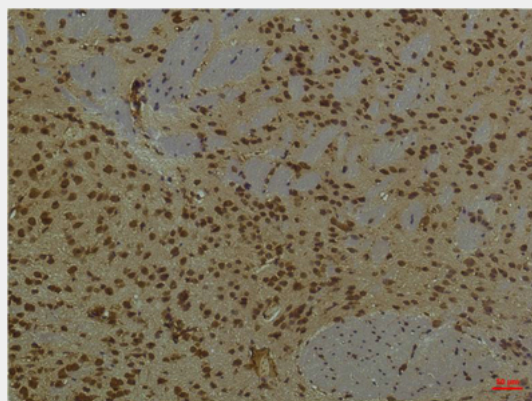
Nucleus.

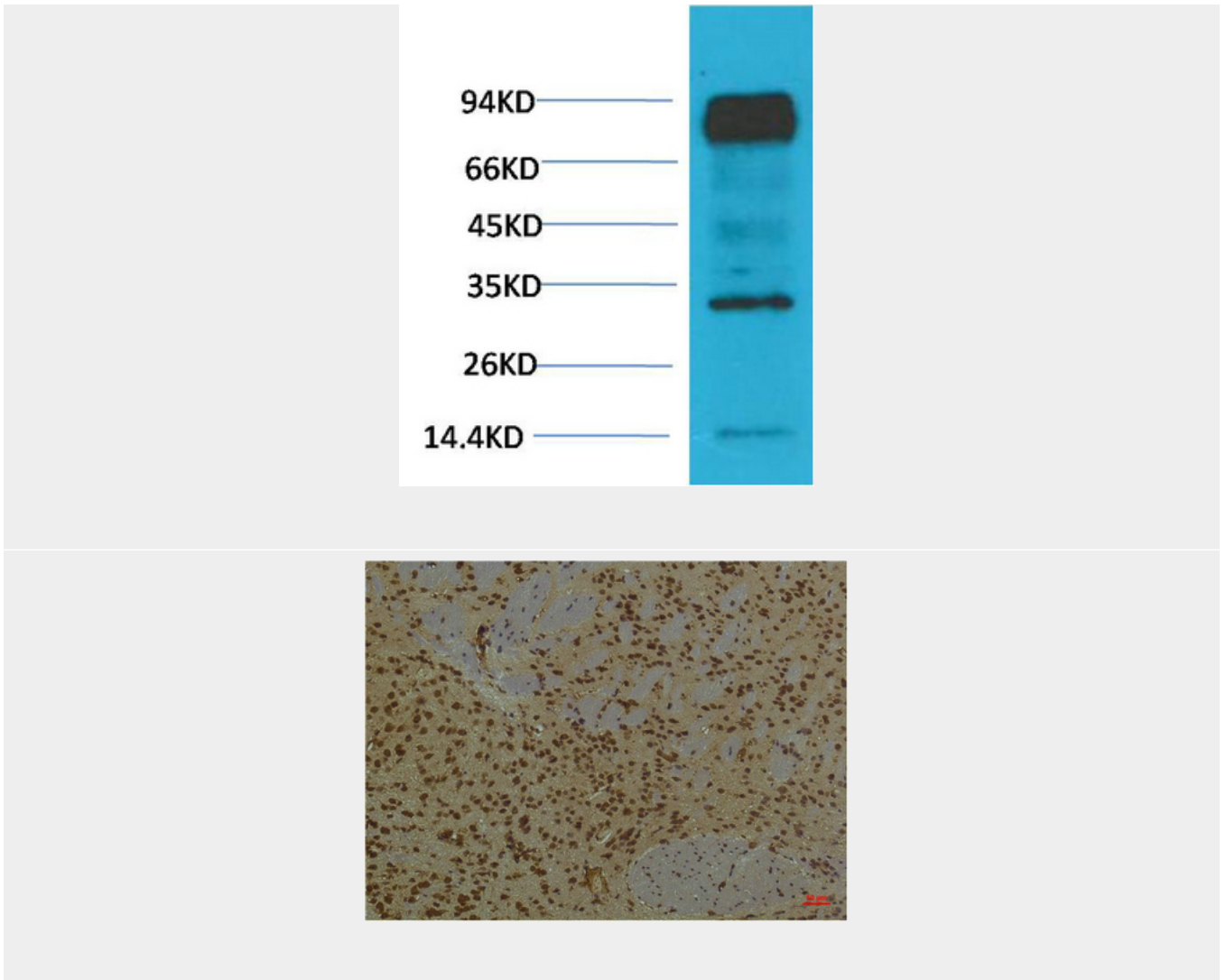
## HIF-1 $\beta$ /ARNT Monoclonal Antibody(4C5) - Protocols

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](#)

## HIF-1 $\beta$ /ARNT Monoclonal Antibody(4C5) - Images





#### **HIF-1 $\beta$ /ARNT Monoclonal Antibody(4C5) - Background**

Required for activity of the Ah (dioxin) receptor. This protein is required for the ligand-binding subunit to translocate from the cytosol to the nucleus after ligand binding. The complex then initiates transcription of genes involved in the activation of PAH procarcinogens. The heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters and functions as a transcriptional regulator of the adaptive response to hypoxia (By similarity). The heterodimer ARNT:AHR binds to core DNA sequence 5'-TGCGTG-3' within the dioxin response element (DRE) of target gene promoters and activates their transcription (PubMed:28396409).