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HIF-1 β/ARNT Monoclonal Antibody(4C5)

Catalog # AP63712

Product Information

Application	WB, IHC-P
Primary Accession	P27540
Reactivity	Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	86636

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 IHC-P~~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℃

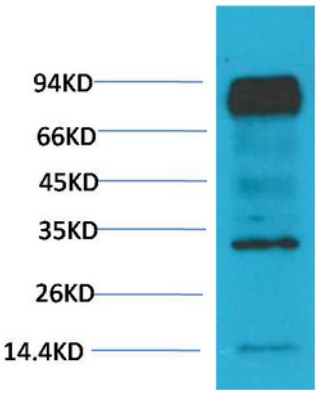
Protein Information

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:34521881). 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:28396409).
Cellular Location	Nucleus.

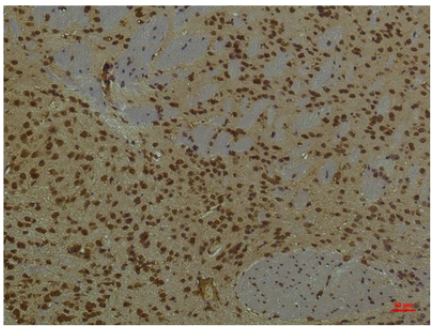
Background

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).

Images



Western blot analysis of Mouse Brain Tissue with HIF-1 β/ARNT Mouse mAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Mouse BrainTissue using HIF-1 β/ARNT Mouse mAb diluted at 1:200.