

HIF-1 beta Antibody

Rabbit mAb

Catalog # AP90541

Product Information

Application	WB, IHC
Primary Accession	P27540
Reactivity	Human
Clonality	Monoclonal
Other Names	ARNT;HIF-1beta;HIF1B;HIF1BETA;TANGO;bHLHe2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	86636

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human HIF-1 beta
Description	HIF-1 β is also known as AhR nuclear translocator (ARNT) due to its ability to partner with the aryl hydrocarbon receptor (AhR) to form a heterodimeric transcription factor complex. Together with AhR, HIF-1 β plays an important role in xenobiotics metabolism. In addition, a chromosomal translocation leading to a TEL-ARNT fusion protein is associated with acute myeloblastic leukemia. Studies also found that ARNT/HIF-1 β expression levels decrease significantly in pancreatic islets from patients with type 2 diabetes, suggesting that HIF-1 β plays an important role in pancreatic β -cell function.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

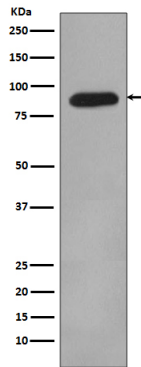
Name	ARNT (HGNC:700)
Synonyms	BHLHE2
Function	Required for activity of the AHR. Upon ligand binding, AHR translocates into the nucleus, where it heterodimerizes with ARNT and induces transcription by binding to xenobiotic response elements (XRE). Not required for the ligand-binding subunit to translocate 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.

Images



Western blot analysis of HIF-1 beta expression in Human fetal kidney lysate.

Image not found : 202311/AP90541-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human colon, using HIF-1 beta Antibody .

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