

HIF-1 beta Antibody

Rabbit mAb Catalog # AP90541

Specification

HIF-1 beta Antibody - Product Information

Application WB, IHC
Primary Accession P27540
Clonality Monoclonal

Other Names

ARNT;HIF-1beta;HIF1B;HIF1BETA;TANGO;bHLHe2;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 86636 Da

HIF-1 beta Antibody - Additional Information

Dilution WB~~1:1000

IHC~~1:100~500

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

HIF-1 beta

Description HIF-1β 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-1β expression levels

decrease significantly in pancreatic islets

from patients with type 2 diabetes,

suggesting that HIF-1β 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.

HIF-1 beta Antibody - 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).

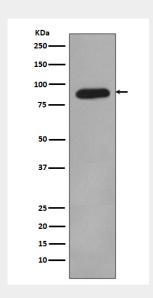
Cellular Location Nucleus.

HIF-1 beta Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HIF-1 beta Antibody - Images



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