

Anti-HIF1 Beta Picoband Antibody
Catalog # ABO11830**Specification****Anti-HIF1 Beta Picoband Antibody - Product Information**

Application	WB
Primary Accession	P27540
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Aryl hydrocarbon receptor nuclear translocator (ARNT) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HIF1 Beta Picoband Antibody - Additional Information

Gene ID 405

Other Names

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, ARNT, BHLHE2

Calculated MW

86636 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Nucleus.

Protein Name

Aryl hydrocarbon receptor nuclear translocator

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

E.coli-derived human HIF1 beta recombinant protein (Position: V416-E789). Human HIF1 beta shares 86% and 83% amino acid (aa) sequences identity with mouse and rat HIF1 beta, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 1 bHLH (basic helix-loop-helix) domain.

Anti-HIF1 Beta Picoband 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/28396409)).

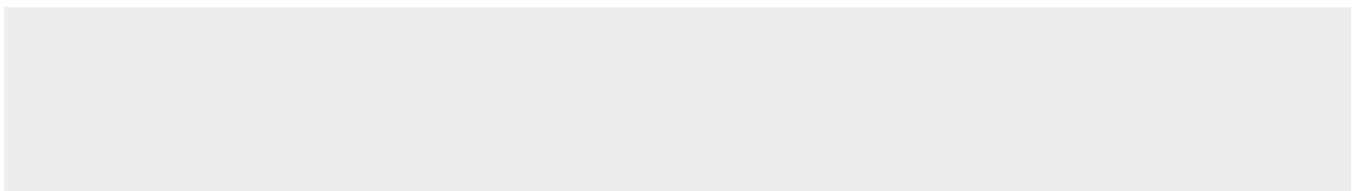
Cellular Location

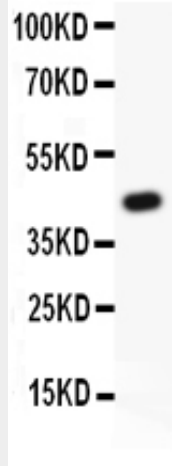
Nucleus.

Anti-HIF1 Beta Picoband Antibody - Protocols

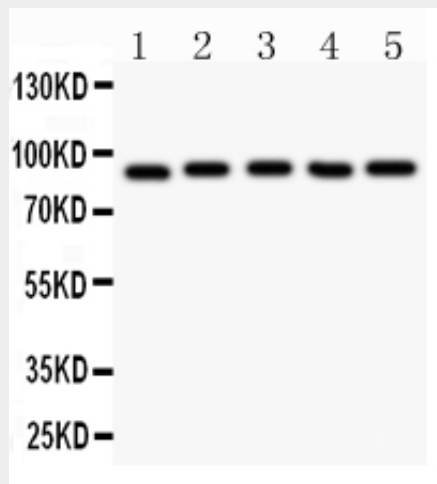
Provided below are standard protocols that you may find useful for product applications.

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

Anti-HIF1 Beta Picoband Antibody - Images



Anti-HIF1 beta Picoband antibody, ABO11830-1.jpg All lanes: Anti HIF1 beta (ABO11830) at 0.5ug/ml WB: Recombinant Human HIF1 beta Protein 0.5ng Predicted bind size: 49KD Observed bind size: 49KD



Anti-HIF1 beta Picoband antibody, ABO11830-2.jpg All lanes: Anti HIF1 beta (ABO11830) at 0.5ug/ml Lane 1: Hela Whole Cell Lysate at 40ug Lane 2: 293T Whole Cell Lysate at 40ug Lane 3: Jurkat Whole Cell Lysate at 40ug Lane 4: U87 Whole Cell Lysate at 40ug Lane 5: Colo320 Whole Cell Lysate at 40ug Predicted bind size: 87KD Observed bind size: 87KD

Anti-HIF1 Beta Picoband Antibody - Background

ARNT is also known as HIF1-beta or HIF1B. This gene encodes a protein containing a basic helix-loop-helix domain and two characteristic PAS domains along with a PAC domain. It is mapped to 1q21.3. The encoded protein binds to ligand-bound aryl hydrocarbon receptor and aids in the movement of this complex to the nucleus, where it promotes the expression of genes involved in xenobiotic metabolism. This protein is also a co-factor for transcriptional regulation by hypoxia-inducible factor 1. ARNT is a structural component of the XRE-binding form of the Ah receptor. It also functions in concert with RelB in a CD30-induced negative feedback mechanism.