

Product datasheet for **AM31721PU-N**

HIF1 beta (ARNT) Mouse Monoclonal Antibody [Clone ID: 3D10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	3D10
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	ELISA. Immunofluorescence: 10 µg/ml. Immunohistochemistry on Paraffin Sections: 5 µg/ml. Western Blot: 1/500 - 1/1000.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	ARNT (AAH60838, 1 a.a. ~ 110 a.a) partial recombinant protein with GST tag.
Specificity:	Recognizes HIF1 beta / ARNT.
Formulation:	PBS, pH 7.2 State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Protein A Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20° or -80°C. Avoid freeze-thaw cycles.
Stability:	Shelf life: one year from despatch.
Gene Name:	aryl hydrocarbon receptor nuclear translocator
Database Link:	Entrez Gene 405 Human P27540



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Background:

Transcriptional responses to many environmental and developmental stimuli are mediated by the basic helix-loop-helix (bHLH)-PAS family of proteins, which form homodimers that bind regulatory DNA sequences. ARNT/HIF-1 beta regulates the expression of different sets of genes in response to distinct environmental challenges. ARNT forms a complex with arylhydrocarbon receptor (AHR) to activate expression of genes encoding P450. Once AHR binds its ligand, it associates with ARNT for transport into the nucleus. ARNT also dimerizes with HIF-1alpha, -2 alpha or -3 alpha in response to low oxygen concentration to induce the expression of hypoxia-regulated genes encoding vascular endothelial growth and other genes. The expression of ARNT/HIF-1beta remains fairly constant and the protein is found in the nucleus and the cytoplasm.

Synonyms:

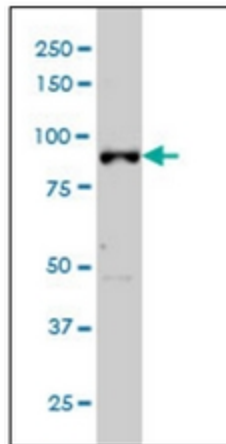
BHLHE2, Dioxin receptor, Hypoxia-inducible factor 1 beta, HIF-1 beta

Protein Families:

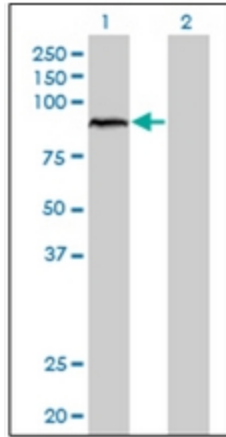
Druggable Genome, Transcription Factors

Protein Pathways:

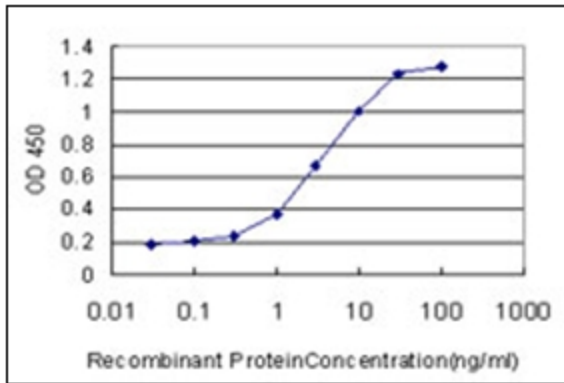
Pathways in cancer, Renal cell carcinoma

Product images:

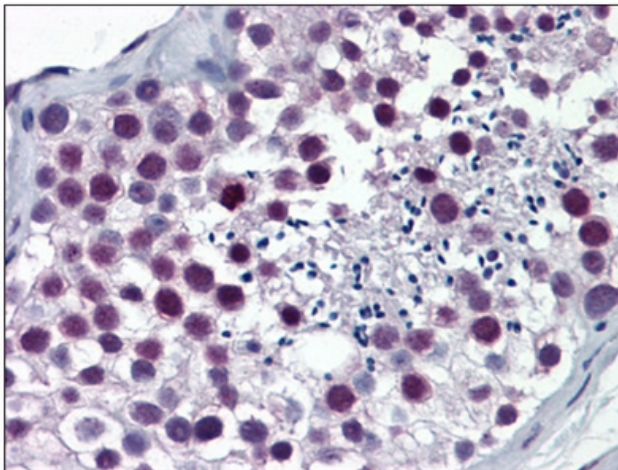
Western Blot analysis of ARNT expression in HeLa nuclear extract.



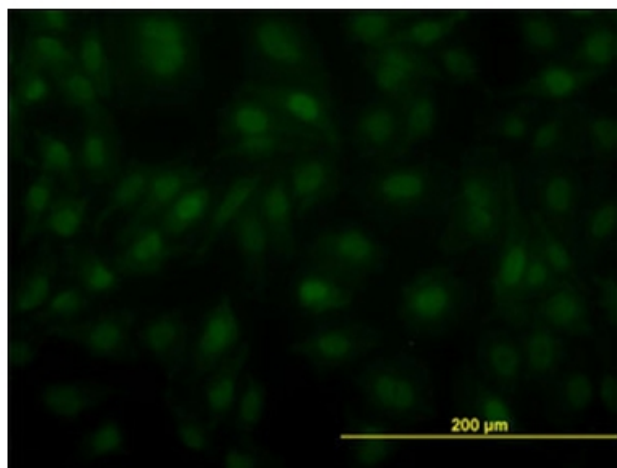
Western Blot analysis of ARNT expression in transfected 293T cell line.



Detection limit for recombinant GST tagged ARNT is approximately 0.03 ng/ml as a capture antibody.



Human Testis: Formalin-Fixed, Paraffin-Embedded (FFPE)



Immunofluorescence of monoclonal ARNT antibody on HeLa cell at 10 ug/ml.