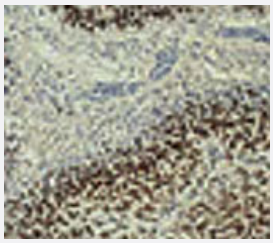
ARNT monoclonal antibody, clone H1beta234

Catalog # MAB2370 Size 100 uL

Applications



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical staining of ARNT on human glioblastoma multi-forme using ARNT monoclonal antibody, clone H1beta234 (Cat # MAB2370).

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant ARNT.
Immunogen	Recombinant protein corresponding to amino acids 496-789 of human ARNT.
Host	Mouse
Reactivity	Bovine, Domestic ferret, Human, Mouse, Rat, Sheep
Specificity	This antibody is specific to HIF-1 beta /ARNT.
Form	Liquid
Isotype	IgG1, kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein.
Recommend Usage	Western Blot (1:500) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1:100) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.05% sodium azide)

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Storage Instruction	Store at -20°C or -80°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

  Immunohistochemical staining of ARNT on human glioblastoma multi-forme using ARNT monoclonal antibody, clone H1beta234 (Cat # MAB2370).

- Western Blot

Gene Info — ARNT

Entrez GeneID	405
Protein Accession#	P27540
Gene Name	ARNT
Gene Alias	HIF-1beta, HIF1B, HIF1BETA, TANGO, bHLHe2
Gene Description	aryl hydrocarbon receptor nuclear translocator
Omim ID	126110
Gene Ontology	Hyperlink
Gene Summary	The aryl hydrocarbon (Ah) receptor is involved in the induction of several enzymes that participate in xenobiotic metabolism. The ligand-free, cytosolic form of the Ah receptor is complexed to heat shock protein 90. Binding of ligand, which includes dioxin and polycyclic aromatic hydrocarbons, r esults in translocation of the ligand-binding subunit only to the nucleus. Induction of enzymes involv ed in xenobiotic metabolism occurs through binding of the ligand-bound Ah receptor to xenobiotic responsive elements in the promoters of genes for these enzymes. This gene encodes a protein t hat forms a complex with the ligand-bound Ah receptor, and is required for receptor function. The encoded protein has also been identified as the beta subunit of a heterodimeric transcription fact or, hypoxia-inducible factor 1 (HIF1). A t(1;12)(q21;p13) translocation, which results in a TEL-ARN T fusion protein, is associated with acute myeloblastic leukemia. Three alternatively spliced varian ts encoding different isoforms have been described for this gene. [provided by RefSeq
Other Designations	OTTHUMP00000032943|dioxin receptor, nuclear translocator|hypoxia-inducible factor 1, beta su bunit

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Publication Reference

- TLR2 controls intestinal carcinogen detoxication by CYP1A1.

  Do KN, Fink LN, Jensen TE, Gautier L, Parlesak A.

  PLoS One 2012 Mar; 7(3):e32309.

  Application: WB-Ti, Mouse, Mouse liver, small intestines

- Antioxidants, HIF prolyl hydroxylase inhibitors or short interfering RNAs to BNIP3 or PUMA, can prevent prodeath effects of the transcriptional activator, HIF-1alpha, in a mouse hippocampal neuronal line.

  Aminova LR, Siddiq A, Ratan RR.

  Antioxidants & Redox Signaling 2008 Dec; 10(12):1989.

  Application: WB, Mouse, HT22 cells

- Lung development in the Holtzman rat is adversely affected by gestational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin.

  Kransler KM, McGarrigle BP, Swartz DD, Olson JR.

  Toxicological Sciences: an Official Journal of the Society of Toxicology 2009 Feb; 107(2):498.

  Application: IHC-P, Rat, Rat lung

- Topotecan inhibits vascular endothelial growth factor production and angiogenic activity induced by hypoxia in human neuroblastoma by targeting hypoxia-inducible factor-1alpha and -2alpha.

  Puppo M, Battaglia F, Ottaviano C, Delfino S, Ribatti D, Varesio L, Bosco MC.

  Molecular Cancer Therapeutics 2008 Jul; 7(7):1974.

  Application: WB-Ce, WB-Tr, Human, GI-LI-N, LAN-5 cells

- (2R)-[(4-Biphenylylsulfonyl)amino]-N-hydroxy-3-phenylpropionamide (BiPS), a matrix metalloprotease inhibitor, is a novel and potent activator of hypoxia-inducible factors.

  Lauzier MC, Robitaille GA, Chan DA, Giaccia AJ, Richard DE.

  Molecular Pharmacology 2008 Apr; 74(1):282.

- Spermidine/spermine-N1-acetyltransferase 2 is an essential component of the ubiquitin ligase complex that regulates hypoxia-inducible factor 1alpha.

  Baek JH, Liu YV, McDonald KR, Wesley JB, Hubbi ME, Byun H, Semenza GL.

  The Journal of Biological Chemistry 2007 Aug; 282(32):23572.

  Application: WB-Tr, Human, HEK 293 cells

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Pathway

- Pathways in cancer
- Renal cell carcinoma

Disease

- Abortion
- Adenocarcinoma
- Cardiovascular Diseases
- Cleft Lip
- Cleft Palate
- Diabetes Mellitus
- Edema
- Endometriosis
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Infertility
- Lung Neoplasms
- Parkinson disease
- Prediabetic State
- Prostate cancer
- Pulmonary Disease
- Thyroid Neoplasms
- Urinary Bladder Neoplasms
- Werner syndrome

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