

**HIF1A Antibody (ascites)**  
**Mouse Monoclonal Antibody (Mab)**  
Catalog # AM1934a

## Specification

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### HIF1A Antibody (ascites) - Product Information

Application	WB,E
Primary Accession	<a href="#">O16665</a>
Other Accession	<a href="#">NP_851397.1</a> , <a href="#">NP_001521.1</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k

### HIF1A Antibody (ascites) - Additional Information

Gene ID 3091

#### Other Names

Hypoxia-inducible factor 1-alpha, HIF-1-alpha, HIF1-alpha, ARNT-interacting protein, Basic-helix-loop-helix-PAS protein MOP1, Class E basic helix-loop-helix protein 78, bHLHe78, Member of PAS protein 1, PAS domain-containing protein 8, HIF1A, BHLHE78, MOP1, PASD8

#### Target/Specificity

This HIF1A monoclonal antibody is generated from mouse immunized with HIF1A recombinant protein.

#### Dilution

WB~~1:100~1000

#### Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

HIF1A Antibody (ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

### HIF1A Antibody (ascites) - Protein Information

**Name** HIF1A {ECO:0000303|PubMed:7539918, ECO:0000312|HGNC:HGNC:4910}

**Function** Functions as a master transcriptional regulator of the adaptive response to hypoxia (PubMed:[11292861](#), PubMed:[11566883](#), PubMed:[15465032](#), PubMed:[16973622](#), PubMed:[17610843](#), PubMed:[18658046](#), PubMed:[20624928](#), PubMed:[22009797](#),

PubMed:[30125331](#), PubMed:[9887100](#)). Under hypoxic conditions, activates the transcription of over 40 genes, including erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, HILPDA, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia (PubMed:[11292861](#), PubMed:[11566883](#), PubMed:[15465032](#), PubMed:[16973622](#), PubMed:[17610843](#), PubMed:[20624928](#), PubMed:[22009797](#), PubMed:[30125331](#), PubMed:[9887100](#)). Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease (PubMed:[22009797](#)). Heterodimerizes with ARNT; heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters (By similarity). Activation requires recruitment of transcriptional coactivators such as CREBBP and EP300 (PubMed:[16543236](#), PubMed:[9887100](#)). Activity is enhanced by interaction with NCOA1 and/or NCOA2 (PubMed:[10594042](#)). Interaction with redox regulatory protein APEX1 seems to activate CTAD and potentiates activation by NCOA1 and CREBBP (PubMed:[10202154](#), PubMed:[10594042](#)). Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia (PubMed:[19528298](#)).

#### **Cellular Location**

Cytoplasm. Nucleus. Nucleus speckle {ECO:0000250|UniProtKB:Q61221}. Note=Colocalizes with HIF3A in the nucleus and speckles (By similarity). Cytoplasmic in normoxia, nuclear translocation in response to hypoxia (PubMed:9822602) {ECO:0000250|UniProtKB:Q61221, ECO:0000269|PubMed:9822602}

#### **Tissue Location**

Expressed in most tissues with highest levels in kidney and heart. Overexpressed in the majority of common human cancers and their metastases, due to the presence of intratumoral hypoxia and as a result of mutations in genes encoding oncoproteins and tumor suppressors. A higher level expression seen in pituitary tumors as compared to the pituitary gland.

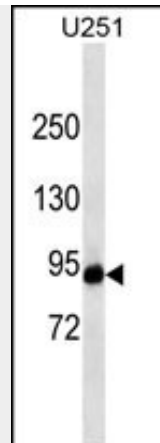
#### **HIF1A Antibody (ascites) - Protocols**

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](#)

#### **HIF1A Antibody (ascites) - Images**





HIF1A (Cat. #AM1934a) western blot analysis in U251 cell line lysates (35µg/lane). This demonstrates the HIF1A antibody detected the HIF1A protein (arrow).

### **HIF1A Antibody (ascites) - Background**

Hypoxia-inducible factor-1 (HIF1) is a transcription factor found in mammalian cells cultured under reduced oxygen tension that plays an essential role in cellular and systemic homeostatic responses to hypoxia. HIF1 is a heterodimer composed of an alpha subunit and a beta subunit. The beta subunit has been identified as the aryl hydrocarbon receptor nuclear translocator (ARNT). This gene encodes the alpha subunit of HIF-1. Overexpression of a natural antisense transcript (aHIF) of this gene has been shown to be associated with nonpapillary renal carcinomas. Two alternative transcripts encoding different isoforms have been identified.

### **HIF1A Antibody (ascites) - References**

Gonsalves, C., et al. J. Immunol. 185(10):6253-6264(2010) Hindryckx, P., et al. J. Immunol. 185(10):6306-6316(2010) Espinosa, I., et al. Am. J. Surg. Pathol. 34(11):1708-1714(2010) Corzo, C.A., et al. J. Exp. Med. 207(11):2439-2453(2010) Shen, G.M., et al. FEBS Lett. 584(20):4366-4372(2010)

### **HIF1A Antibody (ascites) - Citations**

- [20\(s\)-Protopanaxadiol \(PPD\) increases the radiotherapy sensitivity of laryngeal carcinoma.](#)