

**HIF-1 $\alpha$  Polyclonal Antibody**  
Catalog # AP63438**Specification****HIF-1 $\alpha$  Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q16665</a>
Reactivity	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**HIF-1 $\alpha$  Polyclonal Antibody - Additional Information**

Gene ID 3091

**Other Names**

HIF1A; BHLHE78; MOP1; PASD8; 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

**Dilution**

WB~~WB: 1:1000-2000

**Format**

PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.

**Storage Conditions**

-20°C

**HIF-1 $\alpha$  Polyclonal Antibody - 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:<a href="http://www.uniprot.org/citations/11292861" target="\_blank">11292861</a>, PubMed:<a href="http://www.uniprot.org/citations/11566883" target="\_blank">11566883</a>, PubMed:<a href="http://www.uniprot.org/citations/15465032" target="\_blank">15465032</a>, PubMed:<a href="http://www.uniprot.org/citations/16973622" target="\_blank">16973622</a>, PubMed:<a href="http://www.uniprot.org/citations/17610843" target="\_blank">17610843</a>, PubMed:<a href="http://www.uniprot.org/citations/18658046" target="\_blank">18658046</a>, PubMed:<a href="http://www.uniprot.org/citations/20624928" target="\_blank">20624928</a>, PubMed:<a href="http://www.uniprot.org/citations/22009797" target="\_blank">22009797</a>, PubMed:<a href="http://www.uniprot.org/citations/30125331" target="\_blank">30125331</a>, PubMed:<a href="http://www.uniprot.org/citations/9887100" target="\_blank">9887100</a>). 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:<a href="http://www.uniprot.org/citations/11292861" target="\_blank">11292861</a>, PubMed:<a href="http://www.uniprot.org/citations/11566883" target="\_blank">11566883</a>, PubMed:<a href="http://www.uniprot.org/citations/15465032" target="\_blank">15465032</a>, PubMed:<a href="http://www.uniprot.org/citations/16973622" target="\_blank">16973622</a>, PubMed:<a href="http://www.uniprot.org/citations/17610843" target="\_blank">17610843</a>, PubMed:<a href="http://www.uniprot.org/citations/20624928" target="\_blank">20624928</a>, PubMed:<a href="http://www.uniprot.org/citations/22009797" target="\_blank">22009797</a>, PubMed:<a href="http://www.uniprot.org/citations/30125331" target="\_blank">30125331</a>, PubMed:<a href="http://www.uniprot.org/citations/9887100" target="\_blank">9887100</a>). Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease (PubMed:<a href="http://www.uniprot.org/citations/22009797" target="\_blank">22009797</a>). 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:<a href="http://www.uniprot.org/citations/16543236" target="\_blank">16543236</a>, PubMed:<a href="http://www.uniprot.org/citations/9887100" target="\_blank">9887100</a>). Activity is enhanced by interaction with NCOA1 and/or NCOA2 (PubMed:<a href="http://www.uniprot.org/citations/10594042" target="\_blank">10594042</a>). Interaction with redox regulatory protein APEX1 seems to activate CTAD and potentiates activation by NCOA1 and CREBBP (PubMed:<a href="http://www.uniprot.org/citations/10202154" target="\_blank">10202154</a>, PubMed:<a href="http://www.uniprot.org/citations/10594042" target="\_blank">10594042</a>). Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia (PubMed:<a href="http://www.uniprot.org/citations/19528298" target="\_blank">19528298</a>).

#### 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

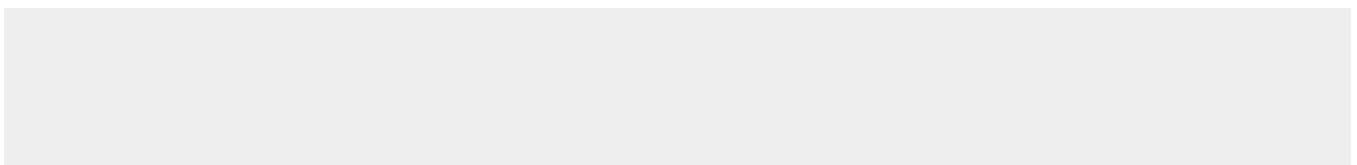
Expressed in most tissues with highest levels in kidney and heart. Overexpressed in the majority of common human cancers and their metastases, due to the presence of intratumoral hypoxia and as a result of mutations in genes encoding oncoproteins and tumor suppressors. A higher level expression seen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

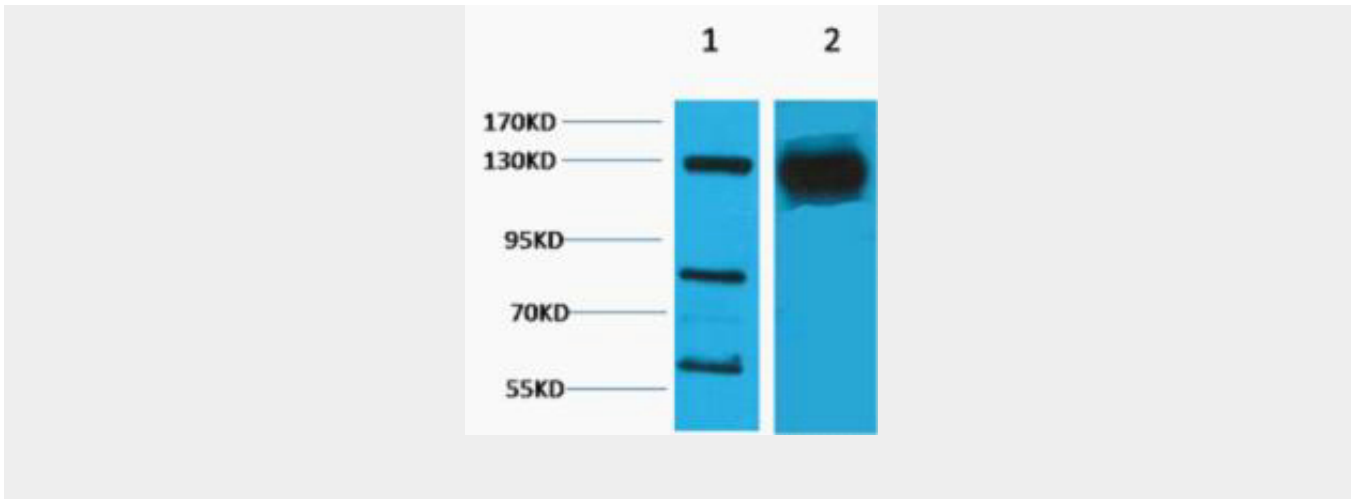
#### HIF-1 $\alpha$ Polyclonal Antibody - Protocols

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](#)

#### HIF-1 $\alpha$ Polyclonal Antibody - Images





### HIF-1 $\alpha$ Polyclonal Antibody - Background

Functions as a master transcriptional regulator of the adaptive response to hypoxia. 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. Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. 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. Activity is enhanced by interaction with both, NCOA1 or NCOA2. Interaction with redox regulatory protein APEX seems to activate CTAD and potentiates activation by NCOA1 and CREBBP. Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia.