

**HIF-1 $\alpha$**   
**Rabbit Monoclonal Antibody (Mab)**  
**Catalog # APA472**

## Specification

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### HIF-1 $\alpha$ - Product Information

Application	IHC
Primary Accession	<a href="#">Q16665</a>
Host	Rabbit
Clonality	Monoclonal
Calculated MW	92670 Da

### HIF-1 $\alpha$ - Additional Information

Gene ID	3091
Gene Name	HIF1A {ECO:0000303 PubMed:7539918, ECO:0000312 HGNC:HGNC:4910}

#### 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 {ECO:0000303|PubMed:7539918, ECO:0000312|HGNC:HGNC:4910}

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	HIF-1 $\alpha$ is for research use only and not for use in diagnostic or therapeutic procedures.

### HIF-1 $\alpha$ - 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="#">11292861</a> , PubMed: <a href="#">11566883</a> , PubMed: <a href="#">15465032</a> , PubMed: <a href="#">16973622</a> , PubMed: <a href="#">17610843</a> , PubMed: <a href="#">18658046</a> , PubMed: <a href="#">20624928</a> , PubMed: <a href="#">22009797</a> , PubMed: <a href="#">9887100</a> , PubMed: <a href="#">30125331</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
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	<p>facilitate metabolic adaptation to hypoxia (PubMed:<a href="#">11292861</a>, PubMed:<a href="#">11566883</a>, PubMed:<a href="#">15465032</a>, PubMed:<a href="#">16973622</a>, PubMed:<a href="#">17610843</a>, PubMed:<a href="#">20624928</a>, PubMed:<a href="#">22009797</a>, PubMed:<a href="#">9887100</a>, PubMed:<a href="#">30125331</a>). Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease (PubMed:<a href="#">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="#">9887100</a>, PubMed:<a href="#">16543236</a>). Activity is enhanced by interaction with NCOA1 and/or NCOA2 (PubMed:<a href="#">10594042</a>). Interaction with redox regulatory protein APEX1 seems to activate CTAD and potentiates activation by NCOA1 and CREBBP (PubMed:<a href="#">10202154</a>, PubMed:<a href="#">10594042</a>). Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia (PubMed:<a href="#">19528298</a>).</p>
Cellular Location	<p>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:<a href="#">9822602</a>) {ECO:0000250 UniProtKB:Q61221, ECO:0000269 PubMed:<a href="#">9822602</a>}</p>
Tissue Location	<p>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.</p>

## HIF-1 $\alpha$ - 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 $\alpha$ - Images**