

## Anti-HIF-1 alpha Rabbit Monoclonal Antibody Catalog # ABO15143

### Specification

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#### Anti-HIF-1 alpha Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, ICC, IP, FC
Primary Accession	<a href="#">Q16665</a>
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

#### Description

Anti-HIF-1 alpha Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human.

#### Anti-HIF-1 alpha Rabbit Monoclonal Antibody - 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  
{ECO:0000303|PubMed:7539918, ECO:0000312|HGNC:HGNC:4910}

#### Application Details

WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:30<br>FC 1:30

#### Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

#### Immunogen

A synthesized peptide derived from human HIF-1 alpha

#### Purification

Affinity-chromatography

#### Storage

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

#### Anti-HIF-1 alpha Rabbit Monoclonal 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

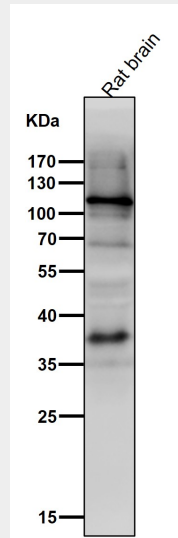
Expressed in most tissues with highest levels in kidney and heart. Overexpressed in the majority of common human cancers and their metastases, due to the presence of intratumoral hypoxia and as a result of mutations in genes encoding oncoproteins and tumor suppressors. A higher level expression seen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

## Anti-HIF-1 alpha Rabbit Monoclonal Antibody - Protocols

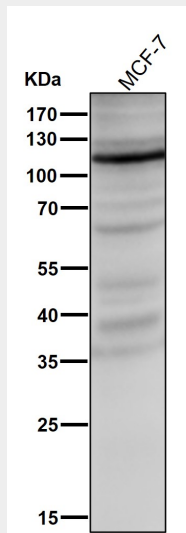
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

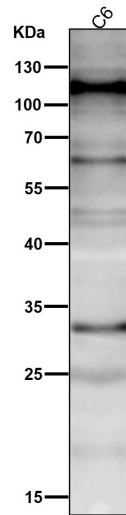
### Anti-HIF-1 alpha Rabbit Monoclonal Antibody - Images



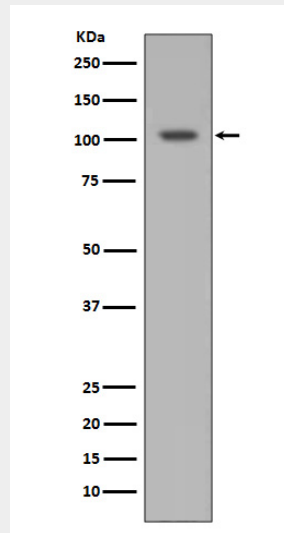
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



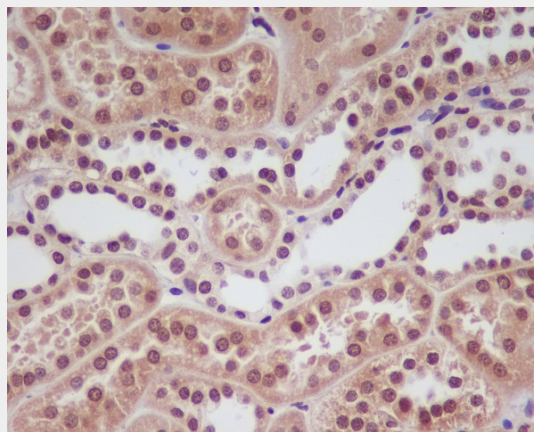
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



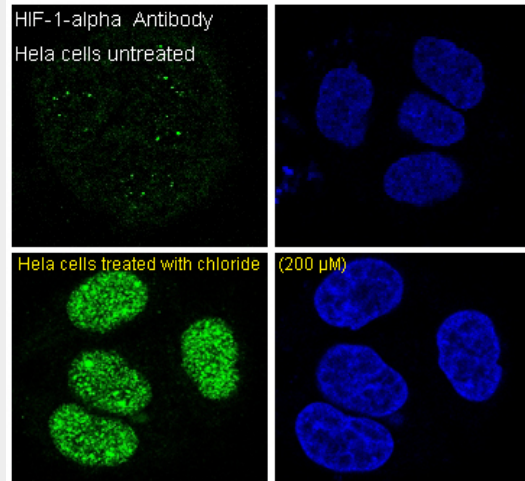
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of HIF-1 alpha expression in Ramos cell lysate.



Immunohistochemical analysis of paraffin-embedded human kidney, using HIF-1 alpha Antibody.



Immunofluorescent analysis of Hela cells, using HIF-1 alpha Antibody.