10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# HIF1Alpha Antibody (C-term)

**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7759B**

## Specification

### HIF1Alpha Antibody (C-term) - Product Information

| | |
|---|---|
| Application | **IHC-P, IF, WB,E** |
| Primary Accession | Q16665 |
| Reactivity | **Human, Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **92670** |
| Antigen Region | **728-757** |

### HIF1Alpha Antibody (C-term) - 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 HIF1Alpha antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 728-757 amino acids from the C-terminal region of human HIF1Alpha.

**Dilution**
IHC-P~~1:10~50
IF~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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**
HIF1Alpha Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### HIF1Alpha Antibody (C-term) - 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.

## HIF1Alpha Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## HIF1Alpha Antibody (C-term) - Images

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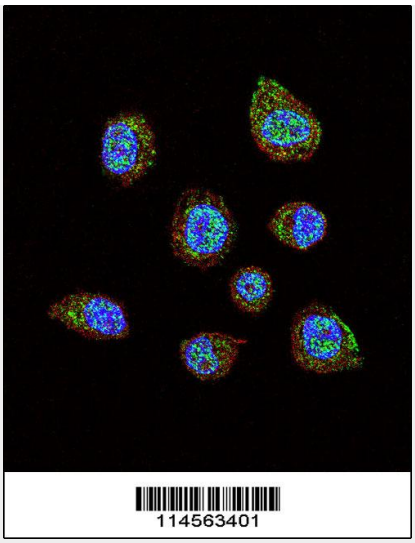
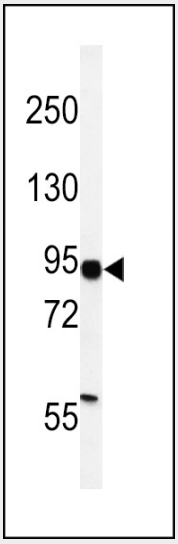
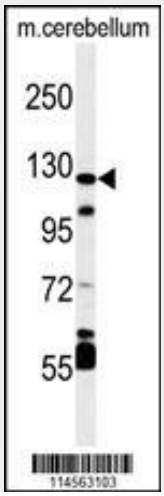



Confocal immunofluorescent analysis of HIF1Alpha Antibody (C-term)(Cat#AP7759b) with MDA-MB231 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).




Western blot analysis of HIF1Alpha Antibody (C-term) (Cat. #AP7759b) in MDA-MB231 cell line lysates (35ug/lane). HIF1Alpha (arrow) was detected using the purified Pab.



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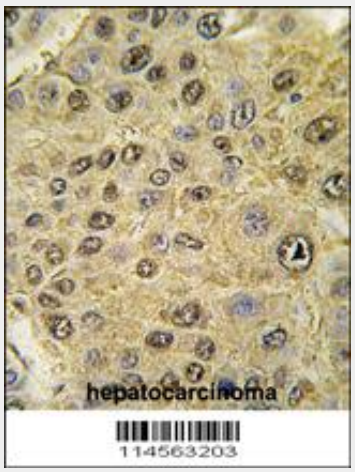
Western blot analysis of HIF1Alpha Antibody (C-term) (Cat. #AP7759b) in mouse cerebellum tissue lysates (35ug/lane). HIF1Alpha (arrow) was detected using the purified Pab.




Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with HIF1Alpha antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohis

**HIF1Alpha Antibody (C-term) - 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).

**HIF1Alpha Antibody (C-term) - References**

Favaro,E., Am. J. Pathol. 173 (4), 1186-1201 (2008) Alexandru,G., Cell 134 (5), 804-816 (2008) Linke,S., J. Biol. Chem. 279 (14), 14391-14397 (2004)