



[20624928](http://www.uniprot.org/citations/20624928), PubMed: [22009797](http://www.uniprot.org/citations/22009797), PubMed: [30125331](http://www.uniprot.org/citations/30125331), PubMed: [9887100](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11292861), PubMed: [11566883](http://www.uniprot.org/citations/11566883), PubMed: [15465032](http://www.uniprot.org/citations/15465032), PubMed: [16973622](http://www.uniprot.org/citations/16973622), PubMed: [17610843](http://www.uniprot.org/citations/17610843), PubMed: [20624928](http://www.uniprot.org/citations/20624928), PubMed: [22009797](http://www.uniprot.org/citations/22009797), PubMed: [30125331](http://www.uniprot.org/citations/30125331), PubMed: [9887100](http://www.uniprot.org/citations/9887100)). Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease (PubMed: [22009797](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/16543236), PubMed: [9887100](http://www.uniprot.org/citations/9887100)). Activity is enhanced by interaction with NCOA1 and/or NCOA2 (PubMed: [10594042](http://www.uniprot.org/citations/10594042)). Interaction with redox regulatory protein APEX1 seems to activate CTAD and potentiates activation by NCOA1 and CREBBP (PubMed: [10202154](http://www.uniprot.org/citations/10202154), PubMed: [10594042](http://www.uniprot.org/citations/10594042)). Involved in the axonal distribution and transport of mitochondria in neurons during hypoxia (PubMed: [19528298](http://www.uniprot.org/citations/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.

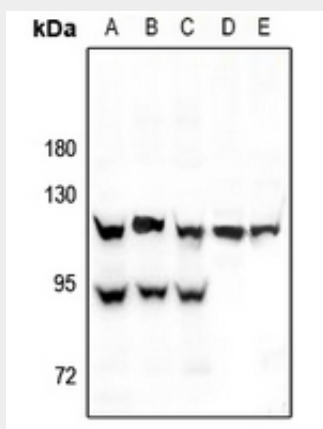
#### Anti-HIF1 alpha Antibody - Protocols

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

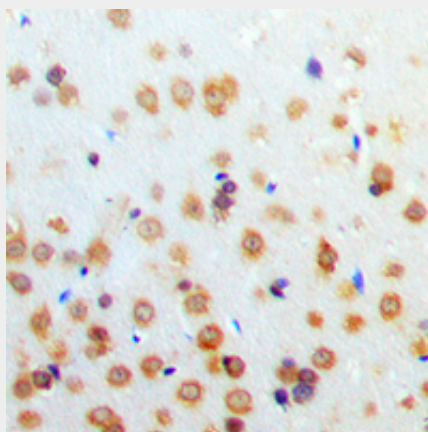
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

## Anti-HIF1 alpha Antibody - Images



Western blot analysis of HIF1 alpha expression in HEK293T (A), A549 (B), MCF7 (C), H9C2 (D), SP20 (E) whole cell lysates.



Immunohistochemical analysis of HIF1 alpha staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

## Anti-HIF1 alpha Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human HIF1 alpha. The exact sequence is proprietary.