**Product Name: HIF-1α Rabbit Polyclonal Antibody**
**Catalog #: APRab12024**
For research use only.

## Summary

| | |
|---|---|
| **Description** | Rabbit polyclonal Antibody |
| **Host** | Rabbit |
| **Application** | WB,IHC,ICC/IF,ELISA,IP |
| **Reactivity** | Human,Mouse,Rat |
| **Conjugation** | Unconjugated |
| **Modification** | Unmodified |
| **Isotype** | IgG |
| **Clonality** | Polyclonal |
| **Form** | Liquid |
| **Concentration** | 1mg/ml |
| **Storage** | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| **Shipping** | Ice bags |
| **Buffer** | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| **Purification** | Affinity purification |

## Application

| | |
|---|---|
| **Dilution Ratio** | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000,IP 1:20-1:300 |
| **Molecular Weight** | 92-130kDa |

## Antigen Information

| | |
|---|---|
| **Gene Name** | HIF1A |
| **Alternative 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 doma |
| **Gene ID** | 3091.0 |
| **SwissProt ID** | Q16665 |
| **Immunogen** | The antiserum was produced against synthesized peptide derived from human HIF-1alpha. AA range:328-377 |

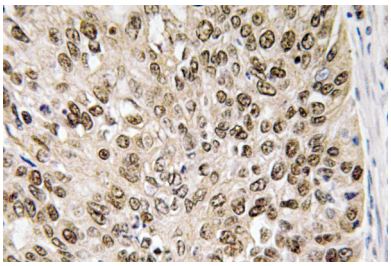
## Background

hypoxia inducible factor 1 alpha subunit(HIF1A) Homo sapiens This gene encodes the alpha subunit of transcription factor hypoxia-inducible factor-1 (HIF-1), which is a heterodimer composed of an alpha and a beta subunit. HIF-1 functions as a master regulator of cellular and systemic homeostatic response to hypoxia by activating transcription of many genes, including those involved in energy metabolism, angiogenesis, apoptosis, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. HIF-1 thus plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jul 2011],domain:Contains two independent C-terminal transactivation domains, NTAD and CTAD, which function synergistically. Their transcriptional activity is repressed by an intervening inhibitory domain (ID).,function: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, 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. Binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response element (HRE) of target gene promoters. Activation requires recruitment of transcriptional coactivators such as CREBPB 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.,induction:Under reduced oxygen tension. Induced also by various receptor-mediated factors such as growth factors, cytokines, and circulatory factors such as PDGF, EGF FGF-2 FGF-2 IGF-2, TGF-1 beta, HGF, TNF alpha, IL-1 beta, angiotensin-2 and thrombin.

## Research Area

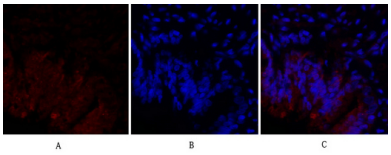
Regulates Angiogenesis; mTOR; Protein_Acetylation

## Image Data

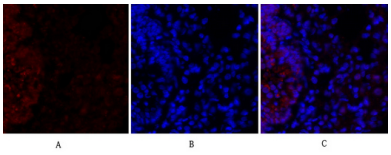


Immunohistochemistry analysis of HIF-1α antibody in paraffin-embedded human brain tissue.

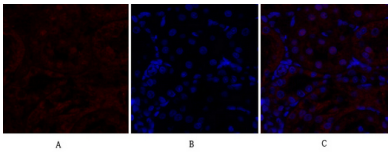

Western blot analysis of lysate from LOVO cells, using HIF-1α antibody.



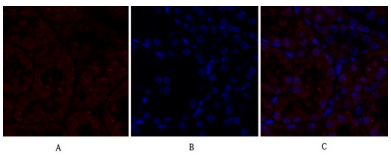
Immunofluorescence analysis of rat-lung tissue. 1,HIF-1α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



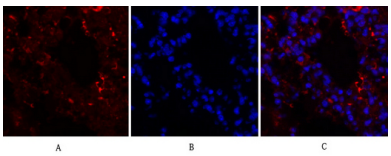
Immunofluorescence analysis of rat-lung tissue. 1,HIF-1α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



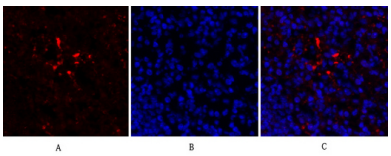
Immunofluorescence analysis of rat-kidney tissue. 1,HIF-1α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



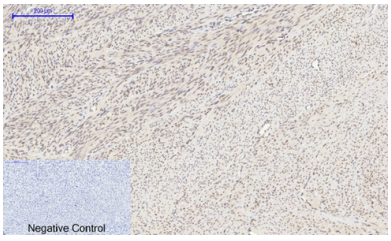
Immunofluorescence analysis of rat-kidney tissue. 1,HIF-1α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-lung tissue. 1,HIF-1α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-lung tissue. 1,HIF-1α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B




Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1,HIF-1α Polyclonal Antibody was diluted at 1:200（4°C,overnight）. 2, Sodium citrate pH 6.0 was used for antibody retrieval（>98°C,20min）. 3,Secondary antibody was diluted at 1:200（room tempeRature, 30min）. Negative control was used by secondary antibody only.