



# HIF-1α Mouse mAb(Mix-mA)

|                           |                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>         | BYab-04805                                                                                                                                                                                                                                                                                                                                                           |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Reactivity</b>         | Human; Mouse;Rat                                                                                                                                                                                                                                                                                                                                                     |
| <b>Applications</b>       | IHC;WB                                                                                                                                                                                                                                                                                                                                                               |
| <b>Gene Name</b>          | HIF1A BHLHE78 MOP1 PASD8                                                                                                                                                                                                                                                                                                                                             |
| <b>Protein Name</b>       | HIF-1α                                                                                                                                                                                                                                                                                                                                                               |
| <b>Immunogen</b>          | Synthesized peptide derived from human HIF-1α                                                                                                                                                                                                                                                                                                                        |
| <b>Specificity</b>        | This antibody detects endogenous levels of HIF-1α at Human, Mouse,Rat                                                                                                                                                                                                                                                                                                |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.46% sodium azide.                                                                                                                                                                                                                                                                                              |
| <b>Source</b>             | Monoclonal, Mouse                                                                                                                                                                                                                                                                                                                                                    |
| <b>Purification</b>       | The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.                                                                                                                                                                                                                                                           |
| <b>Dilution</b>           | IHC-p1:50-200 ,WB 1:1000-2000                                                                                                                                                                                                                                                                                                                                        |
| <b>Concentration</b>      | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>             | ≥90%                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage Stability</b>  | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>           | 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)                                                                                                                   |
| <b>Observed Band</b>      | 110-120kD                                                                                                                                                                                                                                                                                                                                                            |
| <b>Cell Pathway</b>       | Cytoplasm . Nucleus . Nucleus speckle . Colocalizes with HIF3A in the nucleus and speckles (By similarity). Cytoplasmic in normoxia, nuclear translocation in response to hypoxia (PubMed:9822602). .                                                                                                                                                                |
| <b>Tissue Specificity</b> | 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. |
| <b>Function</b>           | 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                                                 |

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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. Acti

## 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],

## matters needing attention

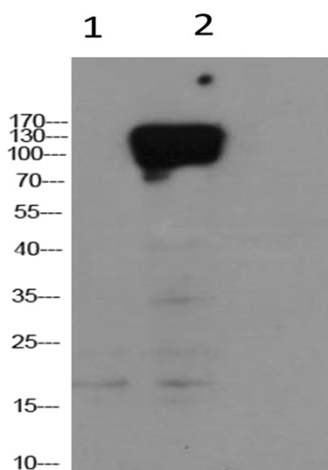
Avoid repeated freezing and thawing!

## Usage suggestions

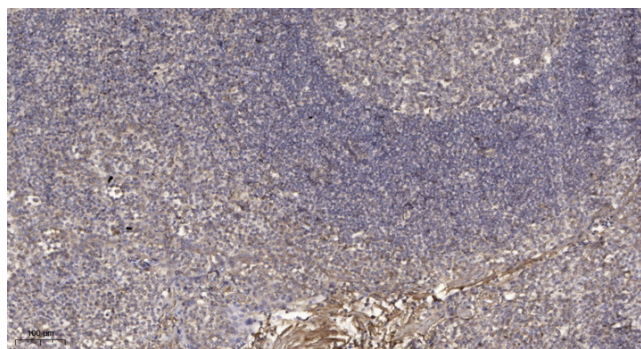
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



## Products Images



Western blot analysis of 1)HepG2 Cell, 2) HepG2  
Treated with CoCl<sub>2</sub> cell Lysate using HIF-1 $\alpha$ Mouse  
Monoclonal mAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded  
human tonsil. 1, Antibody was diluted at 1:200(4°  
overnight). 2, Tris-EDTA,pH9.0 was used for antigen  
retrieval. 3,Secondary antibody was diluted at  
1:200(room temperature, 45min).

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网址: [www.njbybio.com](http://www.njbybio.com)

官方热线: 025-5229-8998

监督电话: 15950492658