

HIF-1 α Monoclonal Antibody

Catalog No :	YM0333
Reactivity :	Human;Mouse;Monkey
Applications :	WB;IHC;IF;ELISA
Target :	HIF-1 α
Fields :	>>HIF-1 signaling pathway;>>Mitophagy - animal;>>Autophagy - animal;>>Th17 cell differentiation;>>Thyroid hormone signaling pathway;>>Kaposi sarcoma-associated herpesvirus infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>Chemical carcinogenesis - reactive oxygen species;>>Renal cell carcinoma;>>Central carbon metabolism in cancer;>>Choline metabolism in cancer;>>PD-L1 expression and PD-1 checkpoint pathway in cancer
Gene Name :	HIF1A
Protein Name :	Hypoxia-inducible factor 1-alpha
Human Gene Id :	3091
Human Swiss Prot No :	Q16665
Mouse Gene Id :	15251
Mouse Swiss Prot No :	Q61221
Immunogen :	Purified recombinant fragment of human HIF-1 α expressed in E. Coli.
Specificity :	HIF-1 α Monoclonal Antibody detects endogenous levels of HIF-1 α protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.

Purification : Affinity purification

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 93kD

Cell Pathway : Regulates Angiogenesis; mTOR; Protein_Acetylation

P References : 1. Int J Radiat Oncol Biol Phys. 2008 Dec 1;72(5):1551-9.
2. Eur J Appl Physiol. 2009 Mar;105(4):515-24.

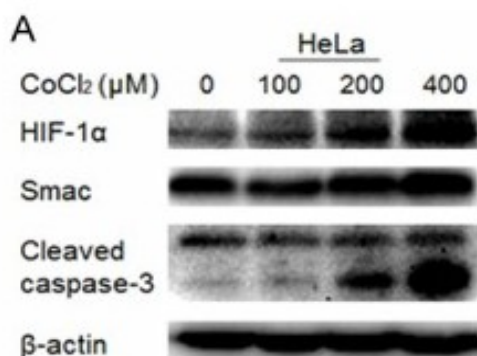
Background : hypoxia inducible factor 1 alpha subunit(HIF1A) Homo sapiens This gene encodes the alpha subunit of transcription factor hypoxia-inducible factor-1 (HIF-1), which is a heterodimer composed of an alpha and a beta subunit. HIF-1 functions as a master regulator of cellular and systemic homeostatic 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],

Function : 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. Acti

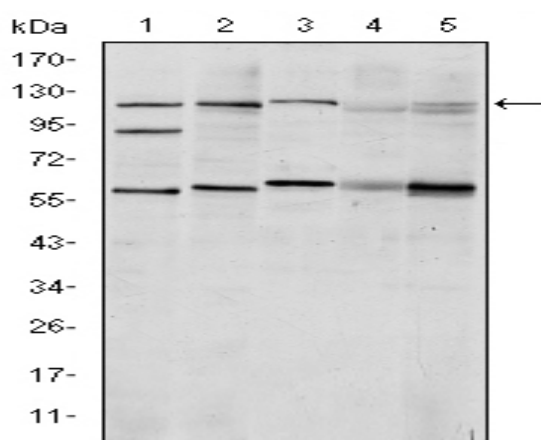
Subcellular Location : Cytoplasm . Nucleus . Nucleus speckle . Colocalizes with HIF3A in the nucleus and speckles (By similarity). Cytoplasmic in normoxia, nuclear translocation in response to hypoxia (PubMed:9822602).

Expression : 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.

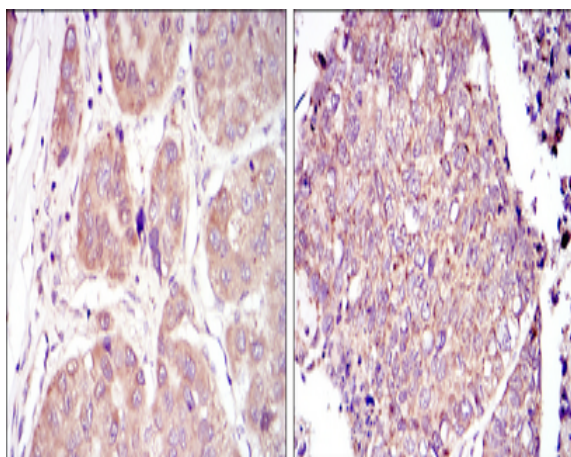
Products Images



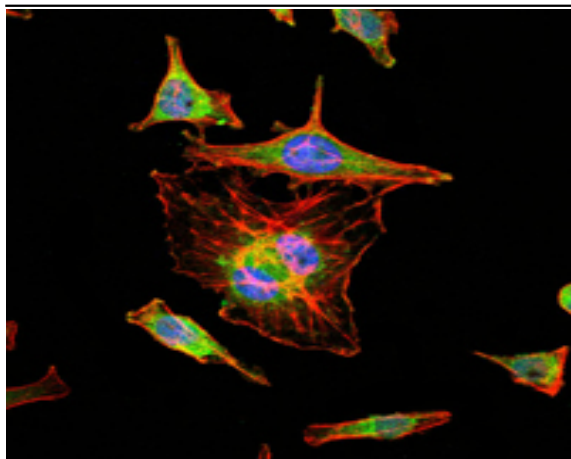
Sun, Lei, et al. "Beclin-1-independent autophagy mediates programmed cancer cell death through interplays with endoplasmic reticulum and/or mitochondria in cobalt chloride-induced hypoxia." *American journal of cancer research* 5.9 (2015): 2626.



Western Blot analysis using HIF-1α Monoclonal Antibody against Cos7 (1), HeLa (2), Jurkat (3), RAJI (4) and NIH/3T3 (5) cell lysate.



Immunohistochemistry analysis of paraffin-embedded liver cancer tissues (left) and lung cancer tissues (right) with DAB staining using HIF-1α Monoclonal Antibody.



Immunofluorescence analysis of HeLa cells using HIF-1α Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

