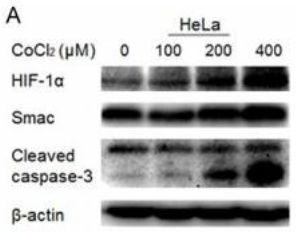
HIF-1α Monoclonal Antibody

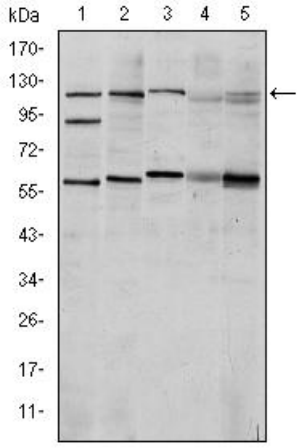
Catalog No	YP-Ab-00992
Isotype	IgG
Reactivity	Human;Mouse;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	HIF1A
Protein Name	Hypoxia-inducible factor 1-alpha
Immunogen	Purified recombinant fragment of human HIF-1α expressed in E. Coli.
Specificity	HIF-1α Monoclonal Antibody detects endogenous levels of HIF-1α protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	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
Observed Band	93kD
Cell Pathway	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). .
Tissue Specificity	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.
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
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.

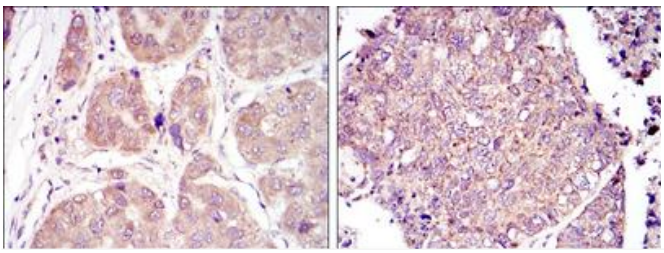
Products Images



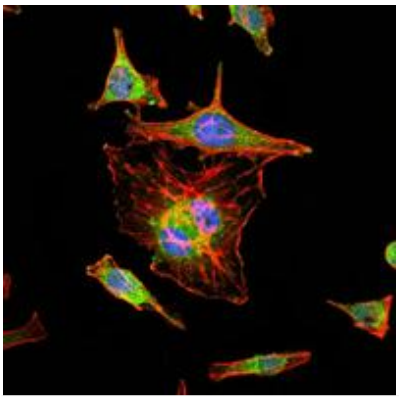
Sun, Lei, et al. "Beclin-1-independent autophagy mediates programmed cancer cell death through interplays with endoplasmic reticulum and/or mitochondria in colbat chloride-induced hypoxia." American journal of cancer research 5.9 (2015): 2626.



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-1 α Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.