Best Tools for immunology Research

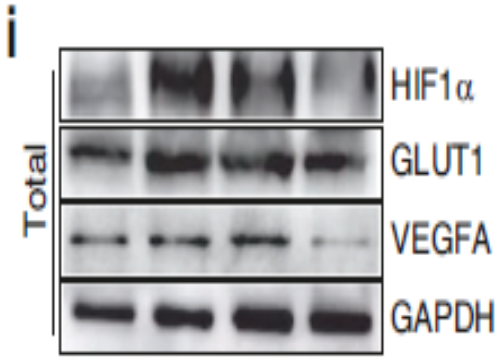
HIF-1α Polyclonal Antibody

Catalog No :	YT2133
Reactivity :	Human;Mouse;Rat
Applications :	IF;WB;IHC;IP;ELISA
Target :	HIF-1α
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
Rat Gene Id :	29560
Rat Swiss Prot No :	O35800
Immunogen :	The antiserum was produced against synthesized peptide derived from human HIF-1alpha. AA range:328-377
Specificity :	HIF-1α Polyclonal Antibody detects endogenous levels of HIF-1α protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

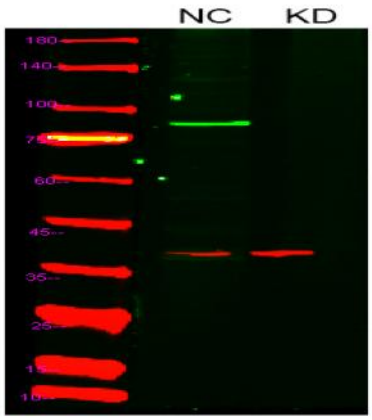
Source :	Polyclonal, Rabbit,IgG
Dilution :	IF 1:50-200 WB 1:500 - 1:2000.IP 1:200 IHC 1:100 - 1:300. ELISA: 1:40000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	92-130kD
Cell Pathway :	Regulates Angiogenesis; mTOR; Protein_Acetylation
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.

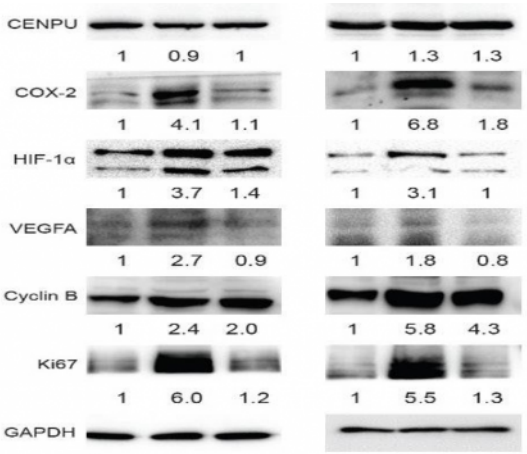
Products Images



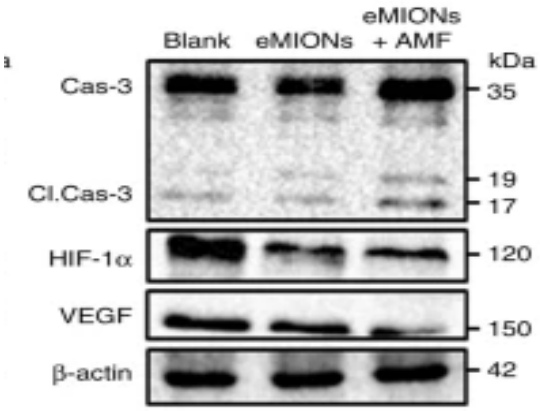
Loss of NDUFS1 promotes gastric cancer progression by activating the mitochondrial ROS-HIF1α-FBLN5 signaling pathway. BRITISH JOURNAL OF CANCER Jin Zhou WB Human 1:5000 MKN45 cell,N87 cell?GES-1 cell,AGS cell,HGC-27 cell,KATO3 cell,SNU-1 cell



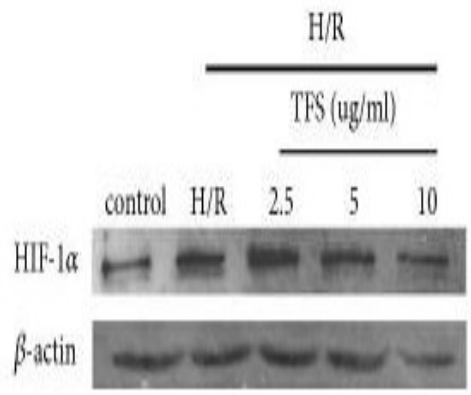
Western blot analysis of lysates from 1)Hela cell , 2)Hela cells knockdown by siRNA (F:GCCACAUUCACGUAUAUGATT,R:UCAUAUACGUGAAUGUGGCTT), (Green) primary antibody was diluted at 1:1000, 4°over night, Dylight 800 secondary antibody(Immunoway:RS23920)was diluted at 1:10000, 37° 1hour. (Red) GAPDH Monoclonal Antibody(5B7) (Immunoway:YM3029) antibody was diluted at 1:5000 as loading control, 4° over night, Dylight 680 secondary antibody(Immunoway:RS23710)was diluted at 1:10000, 37° 1hour.



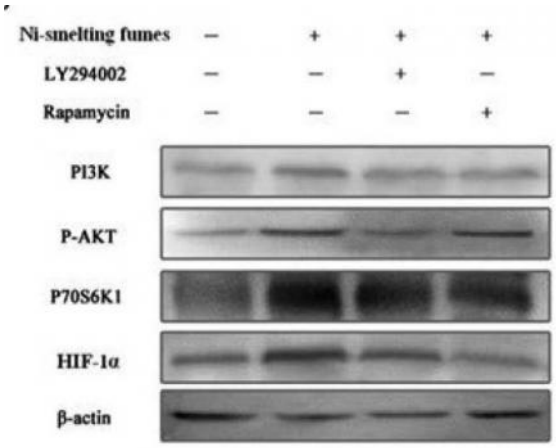
Zhao, Shaorong et al. “Deciphering the performance of polo-like kinase 1 in triple-negative breast cancer progression according to the centromere protein U-phosphorylation pathway.” American journal of cancer research vol. 11,5 2142-2158. 15 May. 2021



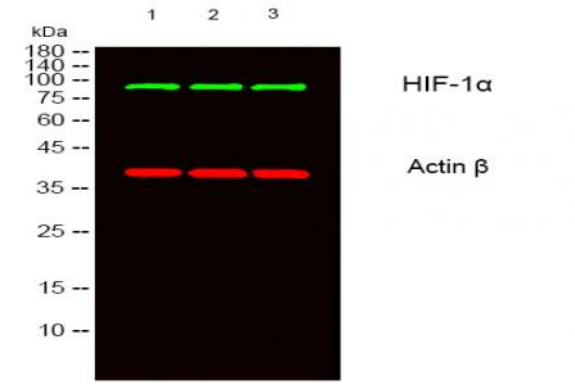
Zhang, Y., Wang, X., Chu, C. et al. Genetically engineered magnetic nanocages for cancer magneto-catalytic theranostics. Nat Commun 11, 5421 (2020).



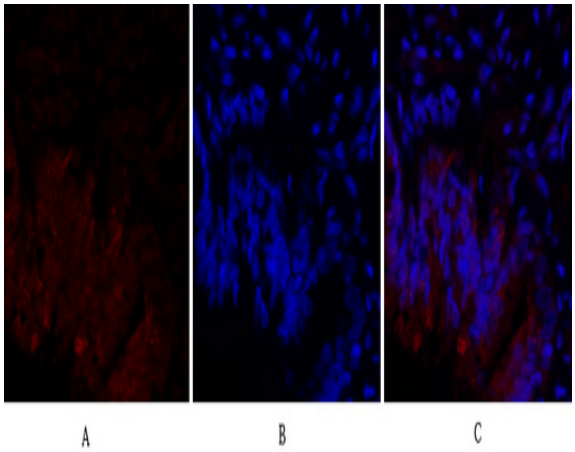
Jiang, Ruibin, et al. "Total Flavonoids from Carya cathayensis Sarg. Leaves Alleviate H9c2 Cells Hypoxia/Reoxygenation Injury via Effects on miR-21 Expression, PTEN/Akt, and the Bcl-2/Bax Pathway." Evidence-Based Complementary and Alternative Medicine 2018 (2018).



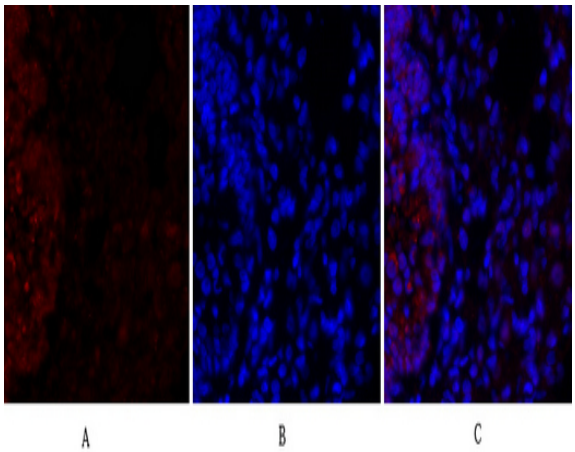
Han, Dan, et al. "Nickel-smelting fumes increased the expression of HIF-1α through PI3K/ERK pathway in NIH/3T3 cells." Journal of occupational health 58.5 (2016): 413-424.



Western blot analysis of lysates from 1) Hela, 2) 293, 3) MOUSE-BRAIN cells, ?Green? primary antibody was diluted at 1:1000, 4°over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37° 1hour. ?Red? Actin β Monoclonal Antibody(5B7) (cat:YM3028) antibody was diluted at 1:5000 as loading control, 4° over night,secondary antibody(cat:RS23710)was diluted at 1:10000, 37° 1hour.



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



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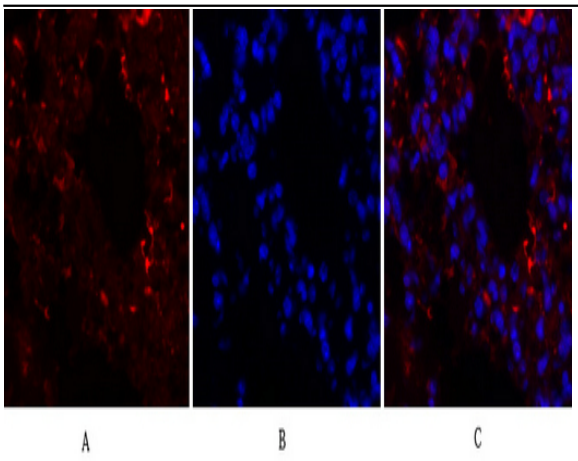
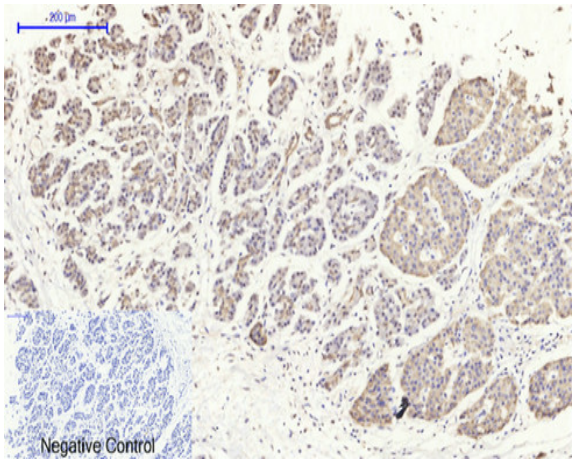
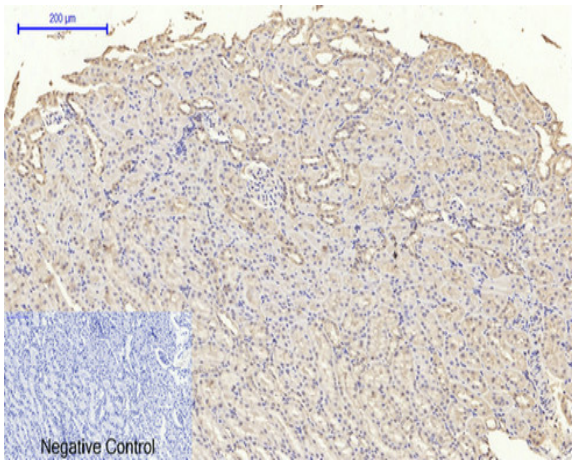


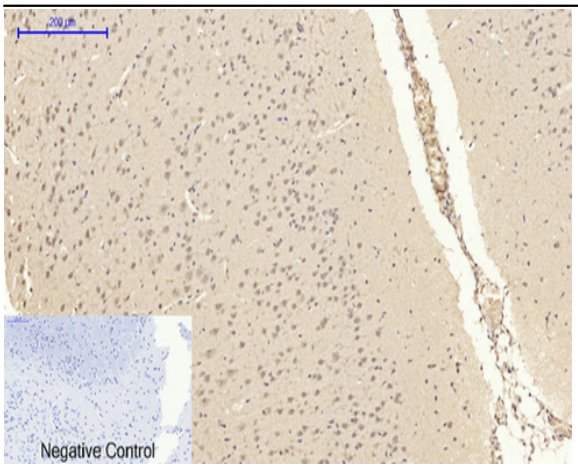
Immunofluorescence analysis of mouse-lung tissue. 1,HIF-1α Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



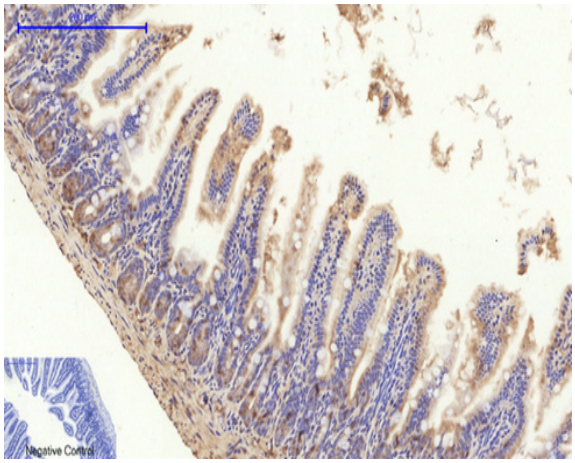
Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1,HIF-1α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control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



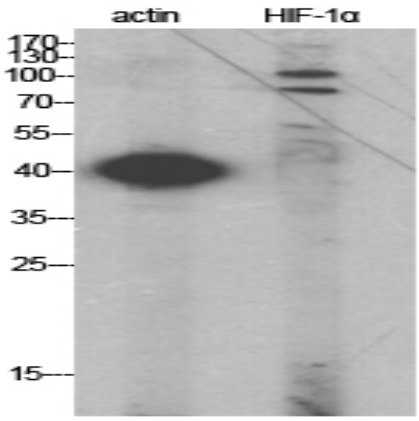
Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1,HIF-1α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by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



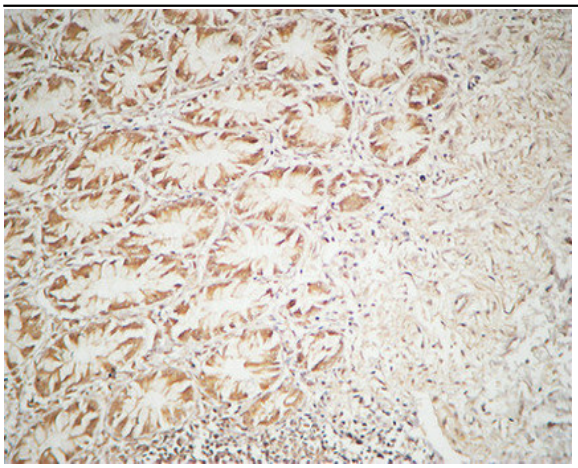
Immunohistochemical analysis of paraffin-embedded Rat-brain tissue. 1,HIF-1α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by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



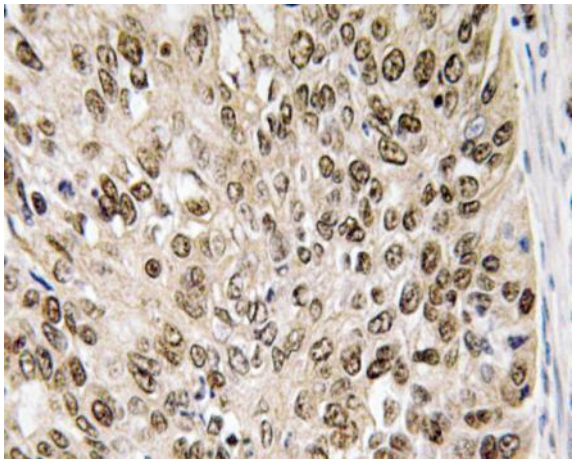
Immunohistochemical analysis of paraffin-embedded Mouse-colon tissue. 1,HIF-1α Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used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



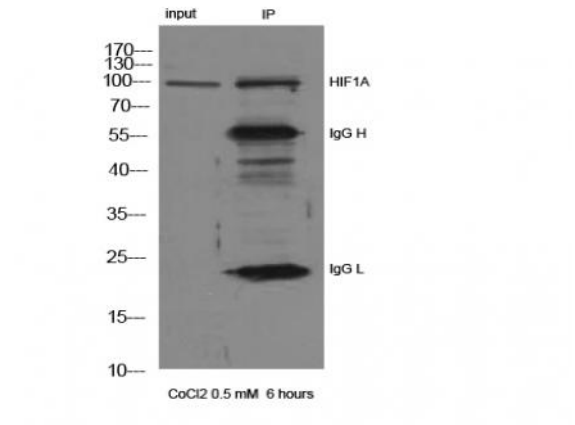
Western Blot analysis of various cells using HIF-1α Polyclonal Antibody diluted at 1:2000



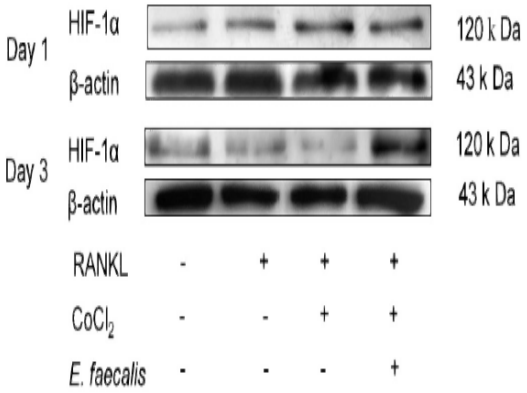
Immunohistochemical analysis of paraffin-embedded Human colon. 1, Antibody was diluted at 1:100(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



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



1) Input: Hela Lysate 2) IP product: IP dilute 1: 200 Hela treated with 0.05mM CoCl2 for 6 hours Western blot analysis: primary antibody : 1:1000 Secondary antibody: Goat anti-Mouse IgG(RS0002), 1: 5000



Effect of Enterococcus faecalis on osteoclastogenesis under cobalt-mimicked hypoxia in vitro MICROBIAL PATHOGENESIS Fengyi Zhou, Xin Li, Xiaochi Chang, Zhihao Geng, Wenjing Hao, Jing Deng, Hai Ming Wong, Shuai Wang WB Mouse BMMs