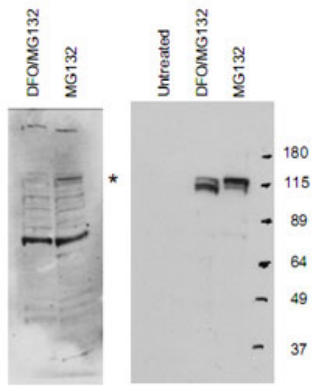
HIF1A polyclonal antibody

Catalog # PAB9946 Size 100 uL

Applications



Western Blot (Cell lysate)

Western blot using HIF1A polyclonal antibody, P564 (Cat # PAB9946) shows detection (left panel) of hydroxylated HIF1A in nuclear extracts of A-549 cells treated with MG132 (a proteosome inhibitor).
Hydroxyproline is not recognized on HIF1A when cells are first treated with DFO, a prolyl hydroxylase inhibitor that prevents HIF hydroxylation.
Control staining is shown (right panel) using conventional HIF1A polyclonal antibody.
The asterisk marks a band approximately 110 kDa in size corresponding to HIF1A.
The primary antibody was used at a 1 : 1,000 dilution in 2% BLOTTO.
Personal Communication, L. Neckers and O. Aprelikova, NCI, Bethesda, MD.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of HIF1A.
Immunogen	A synthetic peptide corresponding to a region surrounding P564 of human HIF1A.
Host	Rabbit
Reactivity	Bovine, Clawed frog, Dog, Human, Monkey, Mouse, Rat
Specificity	This antibody is directed against human HIF-1alpha HYDROXYP564 and is specific to the hydroxylated form of the protein. Minimal reactivity occurs with the non-hydroxylated form of the protein.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.

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Recommend Usage	ELISA (1:5000-1:20000) Western Blot (1:500-1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH_2PO_4, 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunohistochemistry
- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Cell lysate)

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  Control staining is shown (right panel) using conventional HIF1A polyclonal antibody.
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Gene Info — HIF1A

Entrez GeneID	3091
Protein Accession#	NP_001521;Q16665
Gene Name	HIF1A
Gene Alias	HIF-1alpha, HIF1, HIF1-ALPHA, MOP1, PASD8, bHLHe78
Gene Description	hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
Omim ID	603348
Gene Ontology	Hyperlink

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Gene Summary	Hypoxia-inducible factor-1 (HIF1) is a transcription factor found in mammalian cells cultured under reduced oxygen tension that plays an essential role in cellular and systemic homeostatic respons es to hypoxia. HIF1 is a heterodimer composed of an alpha subunit and a beta subunit. The beta subunit has been identified as the aryl hydrocarbon receptor nuclear translocator (ARNT). This ge ne encodes the alpha subunit of HIF-1. Overexpression of a natural antisense transcript (aHIF) of t his gene has been shown to be associated with nonpapillary renal carcinomas. Two alternative tra nscripts encoding different isoforms have been identified. [provided by RefSeq
Other Designations	ARNT interacting protein|hypoxia-inducible factor 1, alpha subunit|hypoxia-inducible factor 1, alph a subunit (basic helix-loop-helix transcription factor)|member of PAS superfamily 1

Publication Reference

- Hypoxia-inducible factor-1alpha expression in the gastric carcinogenesis sequence and its prognostic role in gastric and gastro-oesophageal adenocarcinomas.

  Griffiths EA, Pritchard SA, Valentine HR, Whitchelo N, Bishop PW, Ebert MP, Price PM, Welch IM, West CM.

  British Journal of Cancer 2007 Jan; 96(1):95.

  Application: IHC-P, Human, Human gastric cancer

- Mucin 1 oncoprotein blocks hypoxia-inducible factor 1alpha activation in a survival response to hypoxia.

  Yin L, Kharbanda S, Kufe D.

  The Journal of Biological Chemistry 2007 Jan; 282(1):257.

  Application: WB, Human, HCT-116, ZR-75-1 cells

- IL-4 enhances hypoxia induced HIF-1alpha protein levels in human transformed intestinal cells.

  Scharte M, Jurk K, Kehrel B, Zarbock A, Van Aken H, Singbartl K.

  FEBS Letters 2006 Nov; 580(27):6399.

  Application: WB, Human, HT-29 cells

Pathway

- mTOR signaling pathway
- Pathways in cancer
- Renal cell carcinoma

Disease

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- Acute Disease
- Adenocarcinoma
- Altitude Sickness
- Angina Pectoris
- Anoxia
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Cardiovascular Diseases
- Cellulitis
- Cleft Lip
- Cleft Palate
- Colorectal Neoplasms
- Coronary Disease
- Diabetes Mellitus
- Diabetic Retinopathy
- Disease Susceptibility
- Drug Toxicity
- Edema
- Endometrial Neoplasms
- Esophageal Neoplasms
- Femur Head Necrosis
- Genetic Predisposition to Disease
- Giant Cell Arteritis
- Gilbert Disease
- Hot Flashes

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- Hyperbilirubinemia
- Hypercholesterolemia
- Intracranial Arteriosclerosis
- Intracranial Thrombosis
- Kidney Failure
- Kidney Neoplasms
- Liver Cirrhosis
- Liver Neoplasms
- Lung Neoplasms
- Lymphatic Metastasis
- Microsatellite Instability
- Mouth Neoplasms
- Myocardial Infarction
- Myocardial Ischemia
- Neoplasm Invasiveness
- Neoplasms
- Neovascularization
- Obesity
- Ovarian cancer
- Ovarian Neoplasms
- Peripheral Arterial Disease
- Polycythemia
- Pre-Eclampsia
- Prostate cancer
- Prostatic Neoplasms
- Renal Insufficiency

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- Retinopathy of Prematurity
- Scleroderma
- Sleep Apnea
- Stomach Neoplasms
- Ulcer
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms

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