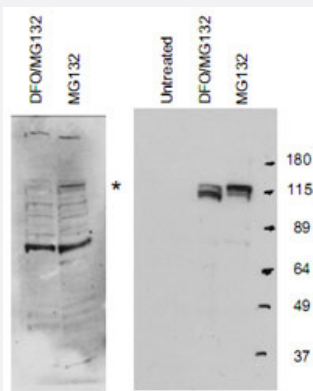


HIF1A polyclonal antibody

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 proteasome 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.

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 ₂ PO 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 should be handled by trained staff only.

Applications

- Western Blot (Cell lysate)

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Personal Communication, L. Neckers and O. Aprelikova, NCI, Bethesda, MD.

- Immunohistochemistry

- Enzyme-linked Immunoabsorbent Assay

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

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 responses 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 gene encodes the alpha subunit of HIF-1. Overexpression of a natural antisense transcript (aHIF) of this gene has been shown to be associated with nonpapillary renal carcinomas. Two alternative transcripts encoding different isoforms have been identified. [provided by RefSeq]

Other Designations

ARNT interacting protein|hypoxia-inducible factor 1, alpha subunit|hypoxia-inducible factor 1, alpha 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, Whitcho 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

- [Acute Disease](#)
- [Adenocarcinoma](#)
- [Altitude Sickness](#)
- [Angina Pectoris](#)
- [Anoxia](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cellulitis](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colorectal Neoplasms](#)
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- [Diabetes Mellitus](#)
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- [Disease Susceptibility](#)
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- [Giant Cell Arteritis](#)
- [Gilbert Disease](#)
- [Hot Flashes](#)

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- [Hypercholesterolemia](#)
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- [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](#)

- [Retinopathy of Prematurity](#)
- [Scleroderma](#)
- [Sleep Apnea](#)
- [Stomach Neoplasms](#)
- [Ulcer](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)