

Product Datasheet

HIF-1 alpha [Hydroxy Pro564] Antibody - BSA Free NB110-74679

Unit Size: 0.1 ml

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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Updated 2/21/2025 v.20.1

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NB110-74679

HIF-1 alpha [Hydroxy Pro564] Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	Serum
Purity	Unpurified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Product Description	
Description	<p>This antibody is directed against human HIF-1a hydroxy P564 and is specific for the hydroxylated form of the protein</p> <p>Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.</p>
Host	Rabbit
Gene ID	3091
Gene Symbol	HIF1A
Species	Human, Mouse
Reactivity Notes	A BLAST analysis was used to suggest cross-reactivity with HIF-1 alpha from monkey, rat, dog, bovine and Xenopus sources based on a 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known
Specificity/Sensitivity	This antibody is directed against human HIF-1a hydroxyP564 and is specific for the hydroxylated form of the protein. Minimal reactivity occurs with the non-hydroxylated form of the protein. This antibody is specific for HIF-1a hydroxylated at P564. Minimal cross-reactivity occurs with non-hydroxylated HIF-1a. A BLAST analysis was used to suggest cross-reactivity with HIF-1a from human, monkey, mouse, rat, dog, bovine and Xenopus sources based on a 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Immunogen	This HIF-1 alpha [Hydroxy Pro564] Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region surrounding the P564 of human HIF-1 alpha. (Uniprot: Q16665)

Product Application Details	
Applications	Western Blot, ELISA, Immunoblotting, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:2000, ELISA 1:5000-1:20000, Immunohistochemistry 1:10 - 1:500, Immunohistochemistry-Paraffin 1:10 - 1:500, Immunoblotting 1:100-1:2000



Application Notes

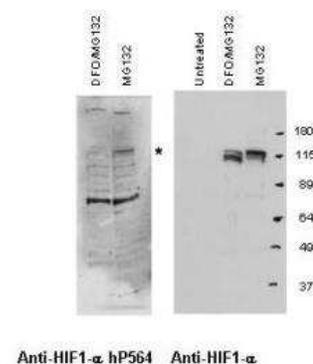
This antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 110 kDa in size corresponding to HIF-1a hydroxyl P564 by western blotting in the appropriate cell lysate or extract.

Use in Immunoblotting reported in scientific literature (PMID 28566998).

Images

Western Blot: HIF-1 alpha [Hydroxy Pro564] Antibody [NB110-74679] - Detection (left panel) of HIF-1 alpha [Hydroxy Pro564] in nuclear extracts of A549 cells treated with MG132 (a proteasome inhibitor).

Hydroxyproline is not recognized on HIF-1alpha when cells are first treated with DFO, a prolyl hydroxylase inhibitor that prevents HIF hydroxylation. Control staining is shown (right panel) using conventional anti-HIF-1alpha. The asterisk marks a band approximately 110 kDa molecular weight in size corresponding to HIF-1 alpha. The primary antibody was used at a 1:1000 dilution in 2% BLOTTO.

**Publications**

Badawi Y, Shi H. Relative Contribution of Prolyl Hydroxylase-Dependent and -Independent Degradation of HIF-1alpha by Proteasomal Pathways in Cerebral Ischemia. *Front Neurosci* 2017-06-01 [PMID: 28566998] (IB, Mouse)

Ohgami N, Yajima I, Iida M et al. Manganese-mediated acceleration of age-related hearing loss in mice. *Sci Rep.* 2016-11-08 [PMID: 27824154] (IF/IHC, Mouse)

Malik RA, Zippel N, Fromel T et al. AMP-Activated Protein Kinase alpha2 in Neutrophils Regulates Vascular Repair via Hypoxia-Inducible Factor-1alpha and a Network of Proteins Affecting Metabolism and Apoptosis. *Circulation Research.* 2016-10-24 [PMID: 2777247] (WB, Mouse)

Yeh IJ. HEXIM1 IS AN INHIBITOR OF TWO TRANSCRIPTION FACTORS CRITICAL IN CANCER: THE ANDROGEN RECEPTOR AND HYPOXIA INDUCIBLE FACTOR-1 ALPHA Thesis. 2015-01-01 (WB, Human)

Yeh IJ, Ogba N, Bensigner H et al. HEXIM1 downregulates Hypoxia Inducible Factor-1 alpha protein stability. *Biochem J.* 2013-09-10 [PMID: 24015760] (WB, Human)

Matoba K, Kawanami D, Okada R et al. Rho-kinase inhibition prevents the progression of diabetic nephropathy by downregulating hypoxia-inducible factor 1alpha. *Kidney Int* 2013-04-24 [PMID: 23615507] (WB, Mouse)

Roitbak T, Surviladze Z, Cunningham LA. Continuous expression of HIF-1alpha in neural stem/progenitor cells *Cell Mol Neurobiol* 2011-01-01 [PMID: 20844947] (WB, Mouse)



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Products Related to NB110-74679

NB820-59244	Human Pancreas Whole Tissue Lysate (Adult Whole Normal)
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
H00003091-P01-10ug	Recombinant Human HIF-1 alpha GST (N-Term) Protein

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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