

Rabbit anti-Human HIF-1 alpha Monoclonal Antibody | anti-HIF1A antibody

Recombinant Anti-HIF-1 alpha Antibody, Rabbit Monoclonal

CATALOG # AAA255498	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunofluorescence, Immunocytochemistry
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PRODUCT SYNONYMS

HIF-1 alpha; Monoclonal Antibody; Recombinant Anti-HIF-1 alpha Antibody; Rabbit Monoclonal; HIF-1 alpha/HIF1A Antibody; Rabbit MAb; hypoxia inducible factor 1; alpha subunit (basic helix-loop-helix transcription factor); Anti-bHLHe78 Antibody; Anti-HIF-1A Antibody; Anti-HIF-1alpha Antibody; Anti-HIF1 Antibody; Anti-HIF1-ALPHA Antibody; Anti-MOP1 Antibody; Anti-PASD8 Antibody; anti-HIF1A antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG
Clone Number	004
Specificity	Human HIF-1 alpha/HIF1A
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Concentration	1.0 mg/mL (varies by lot)
Applicable Applications for anti-HIF1A antibody	IF (Immunofluorescence), ICC (Immunocytochemistry)
Immunogen	Recombinant Human HIF-1 alpha/HIF1A Protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human HIF-1 alpha/HIF1A (rh HIF-1 alpha/HIF1A).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IF (Immunofluorescence)

Immunofluorescence staining of Human HIF1A in Hela cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human HIF1A monoclonal antibody (1:60) at 37 degree C 1 hour. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green). Positive staining was localized to nucleus and cytoplasm.

ADDITIONAL INFORMATION

Related Product Information for anti-HIF1A antibody	HIF-1 alpha, also known as HIF1A, contains 1 basic helix-loop-helix (bHLH) domain, 1 PAC (PAS-associated C-terminal) domain, and 2 PAS (PER-ARNT-SIM) domains. It is one of the two subunits of Hypoxia-inducible factor-1 (HIF1). 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). HIF-1 alpha is expressed in most tissues with the highest levels in the kidney and heart. It is 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. HIF-1 alpha functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions, it activates the transcription of over 40 genes, including erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, HILPDA, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. HIF1A plays an essential role in embryonic vascularization, tumor angiogenesis, and the pathophysiology of ischemic disease. HIF-1 alpha binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response element (HRE) of target gene promoters. Activation requires the recruitment of transcriptional coactivators such as CREBPB and EP300.
Product Categories/Family for anti-HIF1A antibody	Cancer Drug Targets; p53 Pathway
References	Zhou Q, et al. (2011) Loss of either hypoxia inducible factor 1 or 2 promotes lung cancer cell colonization. Cell Cycle. 10(13):2233-4. Krishnan J, et al. (2012) Dietary obesity-associated Hif1 alpha activation in adipocytes restricts fatty acid oxidation and energy expenditure via suppression of the Sirt2-NAD+ system. Genes Dev. 26(3):259-70. Novo E, et al. (2012) The biphasic nature of hypoxia-induced directional migration of activated human hepatic stellate cells. J Pathol. 226(4):588-97. Dungwa JV, et al. (2011) Overexpression of carbonic anhydrase and HIF-1 in Wilms tumours. BMC Cancer. 11:390.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504385
NCBI GeneID	3091
NCBI Accession #	NP_001521.1
NCBI GenBank Nucleotide #	NM_001530.3
UniProt Accession #	Q16665; Q53XP6; Q96PT9; Q9UPB1; C0LZJ3
NCBI Official Full Name	hypoxia-inducible factor 1-alpha isoform 1
NCBI Official Synonym Full Names	hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
NCBI Official Symbol	HIF1A
NCBI Official Synonym Symbols	HIF1; MOP1; PASD8; HIF-1A; bHLHe78; HIF-1alpha; HIF1-ALPHA
NCBI Protein Information	hypoxia-inducible factor 1-alpha; HIF-1-alpha; member of PAS protein 1; ARNT interacting protein; ARNT-interacting protein; member of PAS superfamily 1; hypoxia-inducible factor1alpha; PAS domain-containing protein 8; basic-helix-loop-helix-PAS protein MO
UniProt Protein Name	Hypoxia-inducible factor 1-alpha
UniProt Gene Name	HIF1A
UniProt Synonym Gene Names	BHLHE78; MOP1; PASD8; HIF-1-alpha; HIF1-alpha; bHLHe78
UniProt Entry Name	HIF1A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/hif-1-alpha-antibody-clone-004-immunofluorescence-immunocytochemistry-elisa/255498>