

Product Name: HIF-3 α Rabbit Polyclonal Antibody
Catalog #: APRab12026



Summary

Production Name	HIF-3 α Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	HIF3A Hypoxia-inducible factor 3-alpha; HIF-3-alpha; HIF3-alpha; Basic-helix-loop-helix-PAS protein MOP7; Class E basic helix-loop-helix protein 17; bHLHe17; HIF3-alpha-1; Inhibitory PAS domain protein; IPAS; Member of PAS protein 7; PAS domain-c
Alternative Names	
Gene ID	64344.0
SwissProt ID	Q66K72. The antiserum was produced against synthesized peptide derived from human HIF-3alpha. AA range:305-354

Application

Dilution Ratio	WB 1:500-1:2000, ELISA 1:20000.Not yet tested in other applications.
Molecular Weight	72kDa

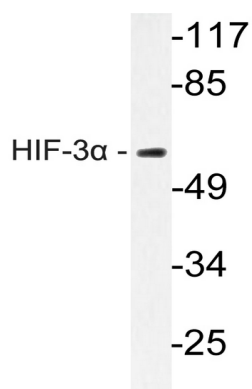
Background

hypoxia inducible factor 3 alpha subunit(HIF3A) Homo sapiens The protein encoded by this gene is the alpha-3 subunit of one of several alpha/beta-subunit heterodimeric transcription factors that regulate many adaptive responses to low oxygen tension (hypoxia). The alpha-3 subunit lacks the transactivation domain found in factors containing either the alpha-1 or alpha-2 subunits. It is thought that factors containing the alpha-3 subunit are negative regulators of hypoxia-inducible gene expression. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Mar 2011],function:Involved in adaptive response to hypoxia. Suppresses hypoxia-inducible expression of HIF1A and EPAS1. Binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters. The complex HIF3A-ARNT activates the transcription of reporter genes driven by HRE. Isoform 4 has a dominant-negative function of inactivating HIF1A-mediated transcription. Isoform 4 attenuates the binding of HIF1A to hypoxia-responsive elements (HRE), thus inhibiting HRE-driven transcription. Hypoxia induces down-regulation of isoform 4, leading to activation of HIF1A in hypoxia. Conversely, upon restoring normoxia, the expression of isoform 4 increases and thereby secure an inhibition of HIF1A activity. Isoform 4 may be a negative regulator of hypoxia-inducible gene expression in the kidney and may be involved in renal tumorigenesis. Functions as an inhibitor of angiogenesis in the cornea.,induction:Strongly induced by hypoxia (1% O₂), both at the level of protein and mRNA due to an increase in protein stability and transcriptional activation.,online information:Hypoxia inducible factor entry,PTM:In normoxia, hydroxylated on Pro-492 in the oxygen-dependent degradation domain (ODD) by PHD. The hydroxylated proline promotes interaction with VHL, initiating rapid ubiquitination and subsequent proteasomal degradation.,similarity:Contains 1 basic helix-loop-helix (bHLH) domain.,similarity:Contains 2 PAS (PER-ARNT-SIM) domains.,subcellular location:In the nuclei of all periportal and perivenous hepatocytes. In the distal perivenous zone, detected in the cytoplasm of the hepatocytes.,subunit:Heterodimerizes with ARNT. Interacts via the oxygen-dependent degradation domain (ODD) with the beta domain of VHL.,tissue specificity:Expressed in kidney. Expressed abundantly in lung epithelial cells. Expression is regulated in an oxygen-dependent manner.,

Research Area

Image Data

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Western blot analysis of lysate from rat brain cells, using HIF-3 α antibody.

Note

For research use only.