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HIF3A / HIF3-Alpha Antibody (aa581-592)

Rabbit Polyclonal Antibody
Catalog # ALS11536

Specification

HIF3A / HIF3-Alpha Antibody (aa581-592) - Product Information

Application	**IHC**
Primary Accession	Q9Y2N7
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**72kDa KDa**

HIF3A / HIF3-Alpha Antibody (aa581-592) - Additional Information

Gene ID 64344

Other Names
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-containing protein 7, HIF3A, BHLHE17, MOP7, PASD7

Target/Specificity
Hif3 a (Hypoxia Inducible Factor).

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

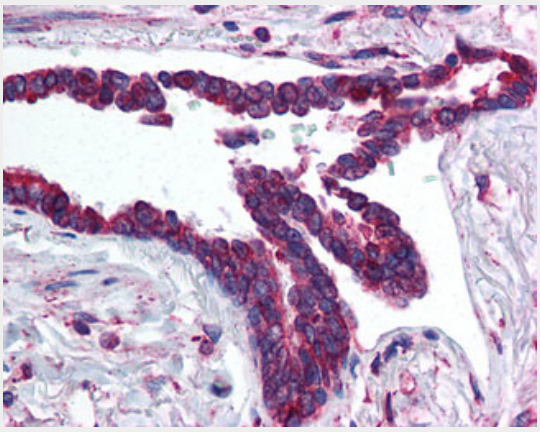
Precautions
HIF3A / HIF3-Alpha Antibody (aa581-592) is for research use only and not for use in diagnostic or therapeutic procedures.

HIF3A / HIF3-Alpha Antibody (aa581-592) - Protein Information

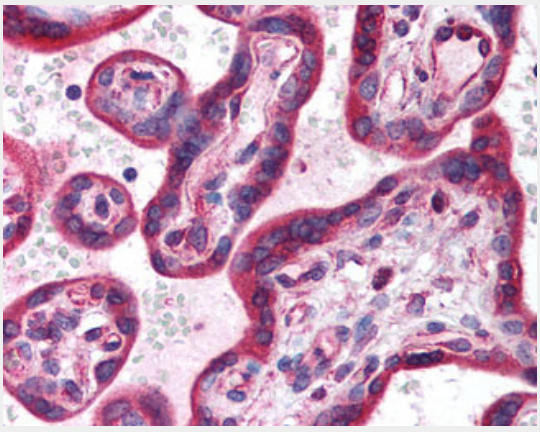
Name HIF3A (HGNC:15825)

Synonyms BHLHE17, MOP7, PASD7

Function
Acts as a transcriptional regulator in



Anti-HIF3A antibody IHC of human lung, respiratory epithelium.



Anti-HIF3A antibody IHC of human placenta.

HIF3A / HIF3-Alpha Antibody (aa581-592) - Background

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

adaptive response to low oxygen tension. Acts as a regulator of hypoxia-inducible gene expression (PubMed:11573933, PubMed:16126907, PubMed:19694616, PubMed:20416395, PubMed:21069422). Functions as an inhibitor of angiogenesis in hypoxic cells of the cornea. Plays a role in the development of the cardiorespiratory system. May also be involved in apoptosis (By similarity).

Cellular Location

Nucleus. Cytoplasm Nucleus speckle {ECO:0000250|UniProtKB:Q0VBL6}. Mitochondrion {ECO:0000250|UniProtKB:Q0VBL6}. Note=In the nuclei of all periportal and perivenous hepatocytes. In the distal perivenous zone, detected in the cytoplasm of the hepatocytes. Shuttles between the nucleus and the cytoplasm in a CRM1-dependent manner. Colocalizes with BAD in the cytoplasm. Colocalizes with EPAS1 and HIF1A in the nucleus and speckles (By similarity). Localized in the cytoplasm and nuclei under normoxia, but increased in the nucleus under hypoxic conditions (PubMed:19694616). Colocalized with HIF1A in kidney tumors (PubMed:19694616). {ECO:0000250|UniProtKB:Q0VBL6, ECO:0000250|UniProtKB:Q9JHS2, ECO:0000269|PubMed:19694616}

Tissue Location

Expressed in vascular cells (at protein level) (PubMed:21069422). Expressed in kidney (PubMed:11573933, PubMed:19694616). Expressed in lung epithelial cells (PubMed:16775626) Expressed in endothelial cells (venous and arterial cells from umbilical cord and aortic endothelial cells) and in vascular smooth muscle cells (aorta) (PubMed:21069422). Strongly expressed in the heart, placenta, and 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 (By similarity).

HIF3A / HIF3-Alpha Antibody (aa581-592) - References

Hara S.,et al.Biochem. Biophys. Res. Commun. 287:808-813(2001).
Cheng J.Q.,et al.Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
Maynard M.A.,et al.FASEB J. 19:1396-1406(2005).
Hara S.,et al.Submitted (FEB-2007) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

skeletal muscle, whereas a weak expression profile was found in the lung, liver, and kidney (PubMed:12538644). Expressed weakly in cell renal cell carcinoma (CC-RCC) compared to normal renal cells (PubMed:16126907). Expression is down-regulated in numerous kidney tumor cells compared to non tumor kidney tissues (PubMed:16126907). Isoform 2 is expressed in heart, placenta, lung, liver, skeletal muscle and pancreas and in numerous cancer cell lines (PubMed:20416395). Isoform 3 and isoform 4 are weakly expressed in heart, placenta, lung, liver, skeletal muscle and pancreas (PubMed:20416395). Isoform 4 is expressed in fetal tissues, such as heart, brain, thymus, lung, liver, skeletal kidney and spleen (PubMed:20416395). Isoform 3 is weakly expressed in fetal tissues, such as liver and kidney (PubMed:20416395).

Volume
50 µl

HIF3A / HIF3-Alpha Antibody (aa581-592) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture