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HIF3 alpha Rabbit pAb

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Catalog # AP58343

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9Y2N7
Reactivity	Rat, Human
Predicted	Pig, Dog, Mouse, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	72433
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HIF3 alpha
Epitope Specificity	131-230/669
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Note=In the nuclei of all periportal and perivenous hepatocytes. In the distal perivenous zone, detected in the cytoplasm of the hepatocytes.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Hypoxia-inducible factor (HIF) is one of the most important factors in the cellular response to hypoxia, transcriptionally activating genes encoding proteins that mediate adaptive responses to reduced oxygen availability. HIF is a heterodimer consisting of one of three subunits, HIF1 alpha, HIF2 alpha, or HIF3 alpha. HIF target genes play critical roles in metabolism, angiogenesis, cell proliferation and cell survival. HIF3 alpha protein is 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. HIF3 alpha may be a marker for tumor growth and angiogenesis.

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 (HGNC:15825), BHLHE17, MOP7, PASD7
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:50-200,IF=1:100-500,ELISA=1:5000

-10000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name HIF3A (HGNC:15825)

Synonyms BHLHE17, MOP7, PASD7

Function Acts as a transcriptional regulator in 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).

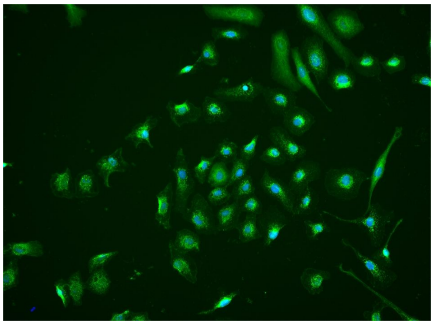
Cellular Location Nucleus. Cytoplasm Nucleus speckle {ECO:0000250|UniProtKB:Q0VBL6}. Mitochondrion {ECO:0000250|UniProtKB:Q0VBL6}. Note=In the nuclei of all periportal and perivenous hepatocytes. In the distal perivenous zone, detected in the cytoplasm of the hepatocytes. Shuttles between the nucleus 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 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).

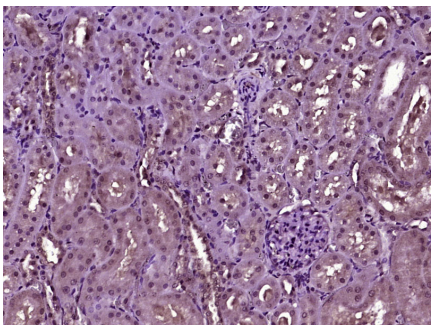
Background

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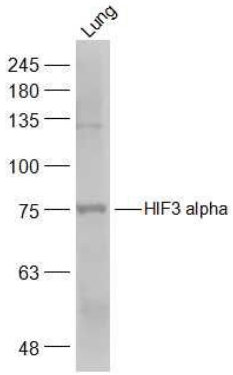
Images



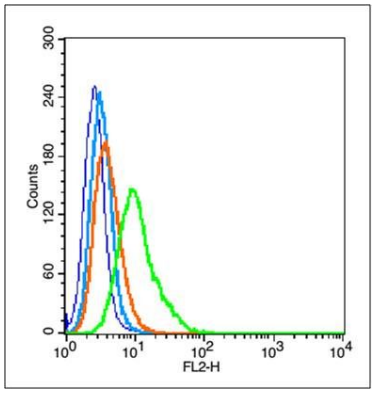
HUVEC cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (HIF3 alpha) polyclonal Antibody, Unconjugated (AP58343) 1:50, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Paraformaldehyde-fixed, paraffin embedded (Rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HIF3 alpha) Polyclonal Antibody, Unconjugated (AP58343) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Sample:
Lung (Mouse) Lysate at 40 ug
Primary: Anti-HIF3 alpha (AP58343) at 1/500 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 74 kD
Observed band size: 75 kD



Blank control (blue line): A549 (fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice).
Primary Antibody (green line): Rabbit Anti-HIF3 alpha antibody (AP58343),ilution: 1 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1 µg /test.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.