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HIF 2 alpha Rabbit pAb

Catalog # AP99962

Product Information

Application	WB
Primary Accession	P97481
Other Accession	P97481
Reactivity	Rat, Mouse
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	96712
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse HIF 2 Alpha
Epitope Specificity	1-130/874
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 basic helix-loop-helix (bHLH) domain. Contains 1 PAC (PAS-associated C-terminal) domain. Contains 2 PAS (PER-ARNT-SIM) domains.
SUBUNIT	Efficient DNA binding requires dimerization with another bHLH protein. Heterodimerizes with ARNT. Interacts with CREBPB.
Post-translational modifications	In normoxia, is probably hydroxylated on Pro-405 and Pro-530 by EGLN1/PHD1, EGLN2/PHD2 and/or EGLN3/PHD3. The hydroxylated prolines promote interaction with VHL, initiating rapid ubiquitination and subsequent proteasomal degradation. Under hypoxia, proline hydroxylation is impaired and ubiquitination is attenuated, resulting in stabilization. In normoxia, is hydroxylated on Asn-851 by HIF1AN thus probably abrogating interaction with CREBBP and EP300 and preventing transcriptional activation. Phosphorylated on multiple sites in the CTAD. The iron and 2-oxoglutarate dependent 3-hydroxylation of asparagine is (S) stereospecific within HIF CTAD domains.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Transcription factor involved in the induction of oxygen regulated genes. Binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response element (HRE) of target gene promoters. Regulates the vascular endothelial growth factor (VEGF) expression and seems to be implicated in the development of blood vessels and the tubular system of lung. May also play a role in the formation of the endothelium that gives rise to the blood brain barrier. Potent activator of the Tie-2 tyrosine kinase expression. Activation requires recruitment of transcriptional coactivators such as CREBPB and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD.

Additional Information

Gene ID	13819
Other Names	ECYT4; HIF2A; HLF; MOP2; PASD2; bHLHe73; HIF-2alpha; HRF; EPAS; EPAS-1; HIF-2 alpha; HIF2 alpha; EPAS1_HUMAN; EPAS1; Basic-helix-loop-helix-PAS protein MOP2; Class E basic helix-loop-helix protein 73 (bHLHe73); HIF-1-alpha-like factor (HLF); Hypoxia-inducible factor 2-alpha (HIF-2-alpha | HIF2-alpha); Member of PAS protein 2; PAS domain-containing protein 2; EPAS1_MOUSE; HIF-1-alpha-like factor (HLF | mHLF); HIF-related factor (HRF); EPAS1_RAT; endothelial PAS domain protein 1; HIF-1 alpha-like factor
Dilution	WB=1:500-2000,ICC/IF=1:50-200,Flow-Cyt=1ug/Test
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	Epas1
Synonyms	Hif2a
Function	Transcription factor involved in the induction of oxygen regulated genes. Heterodimerizes with ARNT; heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters (PubMed:26245371). Regulates the vascular endothelial growth factor (VEGF) expression and seems to be implicated in the development of blood vessels and the tubular system of lung. May also play a role in the formation of the endothelium that gives rise to the blood brain barrier. Potent activator of the Tie-2 tyrosine kinase expression. Activation requires recruitment of transcriptional coactivators such as CREBBP and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981, ECO:0000269|PubMed:21546903}. Nucleus speckle. Note=Colocalizes with HIF3A isoform 2 in the nucleus and speckles.
Tissue Location	Expressed in most tissues, with highest levels in lung, followed by heart, kidney, brain and liver. Predominantly expressed in endothelial cells. Also found in smooth muscle cells of the uterus, neurons, and brown adipose tissue. High expression in embryonic choroid plexus and kidney glomeruli

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