

Summary

Production Name	EPAS-1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF, WB, IHC, 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	EPAS1 BHLHE73 HIF2A MOP2 PASD2
Alternative Names	EPAS1; BHLHE73; HIF2A; MOP2; PASD2; Endothelial PAS domain-containing protein 1; EPAS-1; 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
Gene ID	2034.0
SwissProt ID	Q99814. Synthesized peptide derived from human EPAS-1 around the non-acetylation site of K385.

Application

Dilution Ratio	IF 1:50-200 WB 1:500 - 1:2000. IHC-p: 1:100-1:300. ELISA: 1:20000. Not yet tested in
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other applications.

Molecular Weight 110-120kD

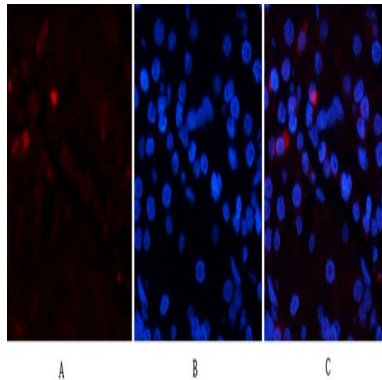
Background

endothelial PAS domain protein 1(EPAS1) Homo sapiens This gene encodes a transcription factor involved in the induction of genes regulated by oxygen, which is induced as oxygen levels fall. The encoded protein contains a basic-helix-loop-helix domain protein dimerization domain as well as a domain found in proteins in signal transduction pathways which respond to oxygen levels. Mutations in this gene are associated with erythrocytosis familial type 4. [provided by RefSeq, Nov 2009],disease:Defects in EPAS1 are the cause of erythrocytosis familial type 4 (ECYT4) [MIM:611783]. ECYT4 is an autosomal dominant disorder characterized by increased serum red blood cell mass, elevated hemoglobin concentration and hematocrit, and normal platelet and leukocyte counts.,function: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 seems to require recruitment of transcriptional coactivators such as CREBBP and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD.,PTM:In normoxia, is hydroxylated on Asn-847 by HIF1AN thus probably abrogating interaction with CREBBP and EP300 and preventing transcriptional activation.,PTM:In normoxia, is probably hydroxylated on Pro-405 and Pro-531 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.,PTM:Phosphorylated on multiple sites in the CTAD.,PTM:The iron and 2-oxoglutarate dependent 3-hydroxylation of asparagine is (S) stereospecific within HIF CTAD domains.,similarity:Contains 1 basic helix-loop-helix (bHLH) domain.,similarity:Contains 1 PAC (PAS-associated C-terminal) domain.,similarity:Contains 2 PAS (PER-ARNT-SIM) domains.,subunit:Efficient DNA binding requires dimerization with another bHLH protein. Heterodimerizes with ARNT. Interacts with CREBBP.,tissue specificity:Expressed in most tissues, with highest levels in placenta, lung and heart. Selectively expressed in endothelial cells.,

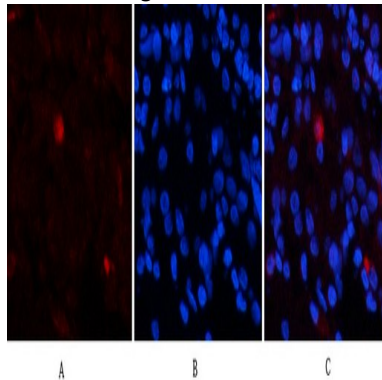
Research Area

Pathways in cancer;Renal cell carcinoma;

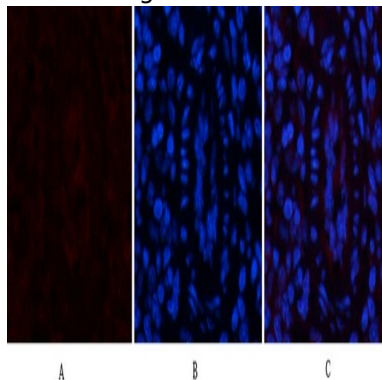
Image Data



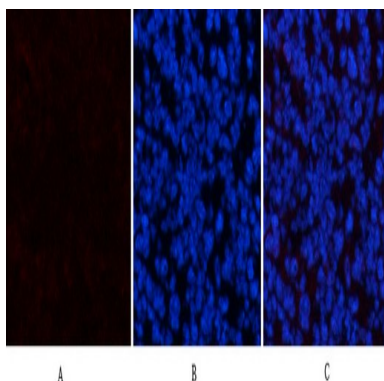
Immunofluorescence analysis of human-stomach tissue. 1,EPAS-1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



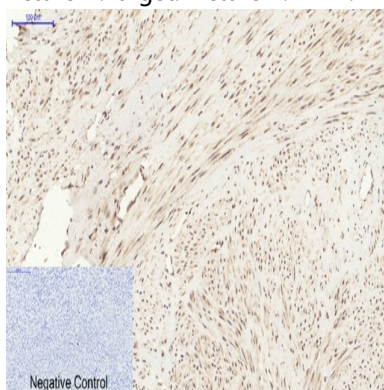
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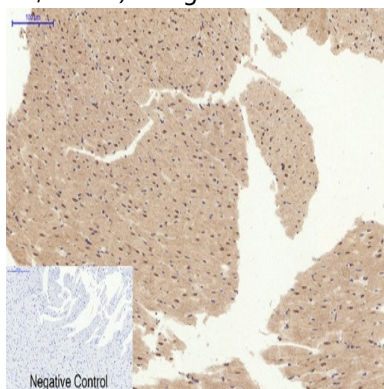
Immunofluorescence analysis of mouse-spleen tissue. 1,EPAS-1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



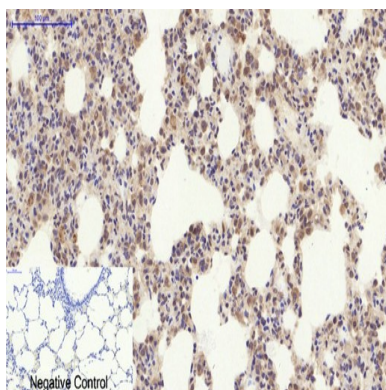
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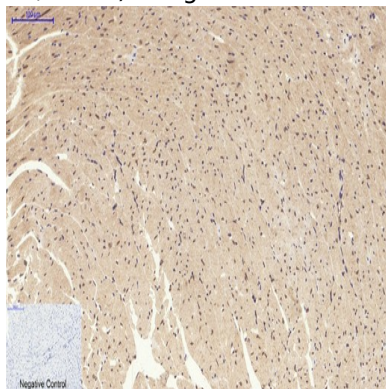
Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, EPAS-1 Polyclonal Antibody was diluted at 1:200 (4°C, overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min) . 3, Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody only.



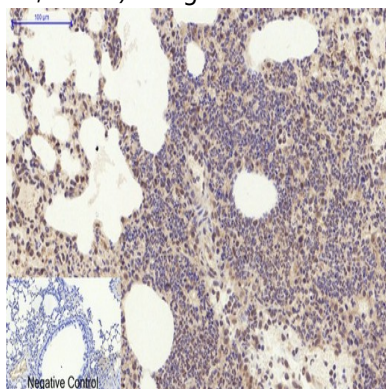
Immunohistochemical analysis of paraffin-embedded Rat-heart tissue. 1, EPAS-1 Polyclonal Antibody was diluted at 1:200 (4°C, overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min) . 3, Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,EPAS-1 Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room teMpeRature, 30min) . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-heart tissue. 1,EPAS-1 Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room teMpeRature, 30min) . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-lung tissue. 1,EPAS-1 Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room teMpeRature, 30min) . Negative control was used by secondary antibody only.

Product Name: EPAS-1 Rabbit Polyclonal Antibody
Catalog #: APRab10504



Note

For research use only.