SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-HIF 2 alpha antibody

Catalog Number: SL1447R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	HIF 2 alpha
Immunogen:	KLH conjugated synthetic peptide derived from mouse HIF 2 Alpha: 1-130/874
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 ICC/IF=1:50-200 Flow-Cyt=1ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse,Rat(predicted:Human)
Predicted MW.:	96kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	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. **Function:** Transcription factor involved in the induction of oxygen regulated genes. Binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia

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	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. **Subunit:** Efficient DNA binding requires dimerization with another bHLH protein. Heterodimerizes with ARNT. Interacts with CREBPB. **Subcellular Location:** Nucleus (Potential). **Tissue Specificity:** 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. **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. **Similarity:** Contains 1 basic helix-loop-helix (bHLH) domain. Contains 1 PAC (PAS-associated C-terminal) domain. Contains 2 PAS (PER-ARNT-SIM) domains. **Database links:** **Entrez Gene:** 282711 Cow **Entrez Gene:** 2034 Human **Entrez Gene:** 13819 Mouse **Entrez Gene:** 100037272 Pig **Entrez Gene:** 29452 Rat Omim: 603349 Human **SwissProt:** Q99814 Human **SwissProt:** P97481 Mouse

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	SwissProt: Q9JHS1 Rat **Unigene:** 468410 Human **Unigene:** 1415 Mouse **Unigene:** 55138 Rat HIF-2α is also an important regulatory protein in the body's adaptive regulation to hypoxia. Some scholars believe that HIF-2α promotes Tumor energy metabolism and neovascularization, and microvessel formation can inhibit Tumor cell apoptosis, thereby promoting the malignant progression of Tumors.

[VALIDATION IMAGES]

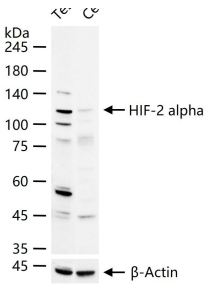


Figure 1. 25 ug total protein per lane of various lysates (see on figure) probed with HIF 2 alpha polyclonal antibody, unconjugated (SL1447R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min

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