

Anti-HIF-1 alpha antibody ab114977

★★★★★ [7 Abreviews](#) [17 References](#) [2 图像](#)

概述

产品名称	Anti-HIF-1 alpha抗体
描述	兔多克隆抗体to HIF-1 alpha
宿主	Rabbit
经测试应用	适用于: IHC-P, ICC
种属反应性	与反应: Mouse, Human 预测可用于: Rat, Rabbit, Goat, Horse, Chicken, Guinea pig, Cow, Dog, Turkey, Pig, Carp, Chimpanzee, Zebrafish, Rhesus monkey, Gorilla, Orangutan 
免疫原	Synthetic peptide corresponding to Human HIF-1 alpha aa 750-850 (C terminal). Database link: Q16665
阳性对照	IHC-P: Mouse squamous cell carcinoma tissue; ICC: HeLa cells.
常规说明	Concentration is optimized for IHC and not determined. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 99% Tris buffered saline, 0.1% BSA
纯度	Protein A purified
纯化说明	ab114977 was affinity purified using an epitope specific to HIF-1-alpha immobilized on solid support.

克隆 多克隆
同种型 IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab114977于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P	★★★★☆ (2)	1/100 - 1/500. Epitope exposure is recommended. Epitope exposure with citrate or tris-EDTA pH9.0 buffer will enhance staining.
ICC		1/100 - 1/500.

靶标

功能 Functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions activates the transcription of over 40 genes, including, erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, and other genes whose protein products increase oxygen delivery or facilitate metabolic adaptation to hypoxia. Plays an essential role in embryonic vascularization, tumor angiogenesis and pathophysiology of ischemic disease. Binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response element (HRE) of target gene promoters. Activation requires recruitment of transcriptional coactivators such as CREBBP and EP300. Activity is enhanced by interaction with both, NCOA1 or NCOA2. Interaction with redox regulatory protein APEX seems to activate CTAD and potentiates activation by NCOA1 and CREBBP.

组织特异性 Expressed in most tissues with highest levels in kidney and heart. Overexpressed in the majority of common human cancers and their metastases, due to the presence of intratumoral hypoxia and as a result of mutations in genes encoding oncoproteins and tumor suppressors.

序列相似性 Contains 1 basic helix-loop-helix (bHLH) domain.
Contains 1 PAC (PAS-associated C-terminal) domain.
Contains 2 PAS (PER-ARNT-SIM) domains.

结构域 Contains two independent C-terminal transactivation domains, NTAD and CTAD, which function synergistically. Their transcriptional activity is repressed by an intervening inhibitory domain (ID).

翻译后修饰 In normoxia, is hydroxylated on Pro-402 and Pro-564 in the oxygen-dependent degradation domain (ODD) by EGLN1/PHD1 and EGLN2/PHD2. EGLN3/PHD3 has also been shown to hydroxylate Pro-564. The hydroxylated prolines promote interaction with VHL, initiating rapid ubiquitination and subsequent proteasomal degradation. Deubiquitinated by USP20. Under hypoxia, proline hydroxylation is impaired and ubiquitination is attenuated, resulting in stabilization.
In normoxia, is hydroxylated on Asn-803 by HIF1AN, thus abrogating interaction with CREBBP and EP300 and preventing transcriptional activation. This hydroxylation is inhibited by the Cu/Zn-chelator, Clioquinol.
S-nitrosylation of Cys-800 may be responsible for increased recruitment of p300 coactivator necessary for transcriptional activity of HIF-1 complex.
Requires phosphorylation for DNA-binding.

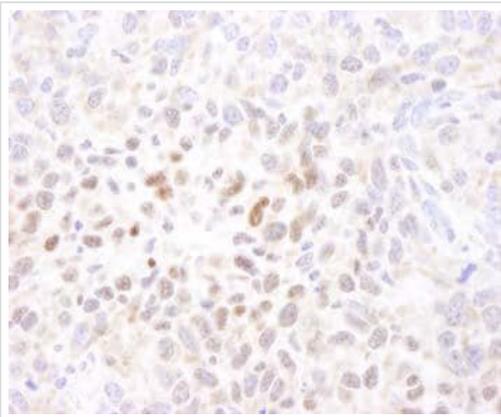
Sumoylated; by SUMO1 under hypoxia. Sumoylation is enhanced through interaction with RWDD3. Desumoylation by SENP1 leads to increased HIF1A stability and transcriptional activity. Ubiquitinated; in normoxia, following hydroxylation and interaction with VHL. Lys-532 appears to be the principal site of ubiquitination. Clioquinol, the Cu/Zn-chelator, inhibits ubiquitination through preventing hydroxylation at Asn-803.

The iron and 2-oxoglutarate dependent 3-hydroxylation of asparagine is (S) stereospecific within HIF CTAD domains.

细胞定位

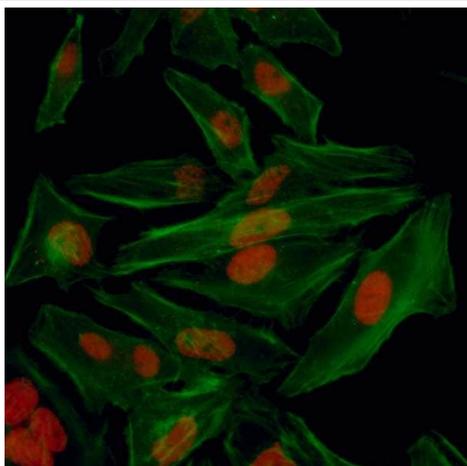
Cytoplasm. Nucleus. Cytoplasmic in normoxia, nuclear translocation in response to hypoxia. Colocalizes with SUMO1 in the nucleus, under hypoxia.

图片



ab114977 at 1:250 dilution staining HIF-1-alpha in Formalin-fixed, Paraffin-embedded Mouse squamous cell carcinoma tissue by Immunohistochemistry.
Detection: DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HIF-1 alpha antibody (ab114977)



Immunocytochemistry analysis of formaldehyde-fixed asynchronous hypoxic HeLa (Human cervix adenocarcinoma epithelial cell line) cells labeling HIF-1 alpha with ab114977 at a 1/100 dilution.

Immunocytochemistry - Anti-HIF-1 alpha antibody (ab114977)

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