

### Anti-HIF-1 alpha antibody ab82832

★★★★★ [1 Abreviews](#) [52 References](#) [1 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: WB
种属反应性	与反应: Recombinant fragment
免疫原	Synthetic peptide corresponding to Human HIF-1 alpha conjugated to keyhole limpet haemocyanin. Database link: <a href="#">Q16665</a>
常规说明	<p>Under normoxic conditions HIF-1 alpha has a short half-life. It is largely undetectable in cells or tissues grown under normoxic conditions. It is stabilized only at O2 concentrations below 5% and upon stabilization under hypoxic conditions HIF-1 translocates to the nucleus. Therefore we recommend western blots using nuclear extracts and running Hypoxia treated samples as positive control (<a href="#">ab180880</a>). Hypoxia can be induced with treatment using certain agents e.g. CoCl<sub>2</sub> or DFO, etc. so proper sample preparation is critical.</p> <p>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.</p> <p>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&amp;As</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	Preservative: 0.01% Thimerosal (merthiolate) Constituents: 50% Glycerol, 0.1% BSA, PBS
纯度	Protein A purified
纯化说明	Crude serum, final bleed.

克隆

多克隆

同种型

IgG

应用

The Abpromise guarantee      **Abpromise™**承诺保证使用ab82832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
WB		1/1000. Detects a band of approximately 107 kDa (predicted molecular weight: 93 kDa). Ensure cell lysis occurs quickly if removed from hypoxia. Ultrasonic lysis is recommended to enrich more nuclear lysate.  Positive Control: Hypoxic samples such as HeLa-DFO treated whole cell lysate <b>ab116322</b> . For a stronger signal, HeLa-DFO treated nuclear extracts are recommended <b>ab180880</b> . The cell

靶标

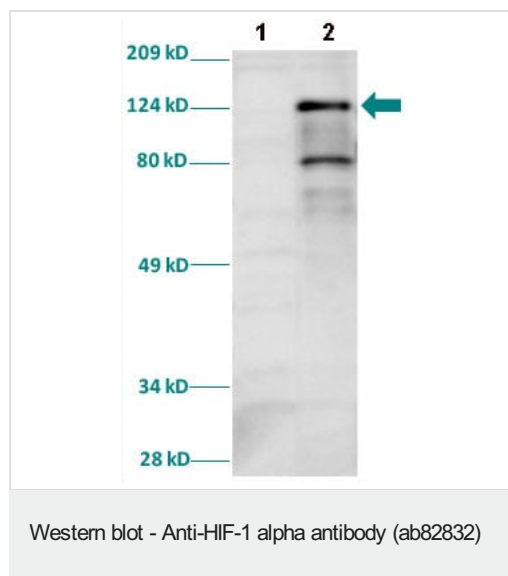
功能	Functions as a master transcriptional regulator of the adaptive response to hypoxia. Under hypoxic conditions activates the transcription of over 40 genes, including, erythropoietin, glucose transporters, glycolytic enzymes, vascular endothelial growth factor, and other genes whose protein products 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 CREBPB 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



**All lanes :** Anti-HIF-1 alpha antibody (ab82832) at 1/1000 dilution

**Lane 1 :** uninduced culture of E.coli (one shot Top10 competent cells)

**Lane 2 :** induced culture of E.coli (one shot Top10 competent cells)

#### Secondary

**All lanes :** anti-Rabbit IgG HRP at 1/1000 dilution

**Predicted band size:** 93 kDa

**Additional bands at:** 80 kDa. We are unsure as to the identity of these extra bands.

Molecular weight of tag is 14kDa.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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