

### Anti-HIF-1 alpha antibody ab82832

★★★★★ 1 Abreviews 52 References 画像数 1

医薬用外劇物

#### 製品の概要

製品名	Anti-HIF-1 alpha antibody
製品の詳細	Rabbit polyclonal to HIF-1 alpha
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB
種交差性	<b>交差種:</b> Recombinant fragment
免疫原	Synthetic peptide corresponding to Human HIF-1 alpha conjugated to keyhole limpet haemocyanin. Database link: <a href="#">Q16665</a>
特記事項	<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 O<sub>2</sub> 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>

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
バッファー	Preservative: 0.01% Thimerosal (merthiolate) Constituents: 50% Glycerol, 0.1% BSA, PBS
精製度	Protein A purified
特記事項(精製)	Crude serum, final bleed.

ポリ/モノ	ポリクローナル
アイソタイプ	IgG

## アプリケーション

**The Abpromise guarantee** Abpromise保証は、次のテスト済みアプリケーションにおけるab82832の使用に適用されます  
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

アプリケーション	Abreviews	特記事項
WB		<p>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.</p> <p>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</p>

## ターゲット情報

<b>機能</b>	<p>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.</p>
<b>組織特異性</b>	<p>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.</p>
<b>配列類似性</b>	<p>Contains 1 basic helix-loop-helix (bHLH) domain.            Contains 1 PAC (PAS-associated C-terminal) domain.            Contains 2 PAS (PER-ARNT-SIM) domains.</p>
<b>ドメイン</b>	<p>Contains two independent C-terminal transactivation domains, NTAD and CTAD, which function synergistically. Their transcriptional activity is repressed by an intervening inhibitory domain (ID).</p>
<b>翻訳後修飾</b>	<p>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.</p> <p>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.</p> <p>S-nitrosylation of Cys-800 may be responsible for increased recruitment of p300 coactivator necessary for transcriptional activity of HIF-1 complex.</p>

Requires phosphorylation for DNA-binding.

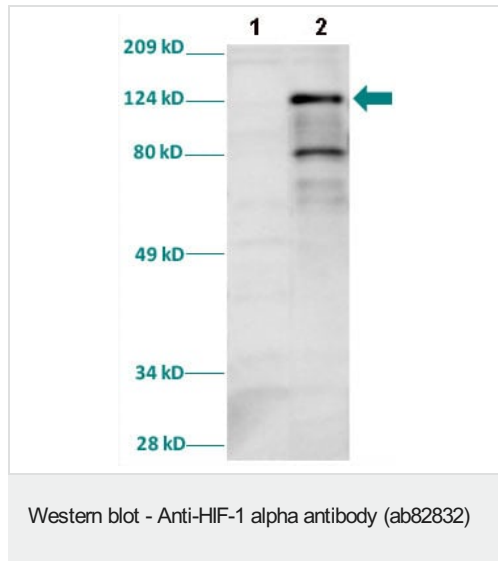
Sumoylated; by SUMO1 under hypoxia. Sumoylation is enhanced through interaction with RWDD3. Desumoylation by SENP1 leads to increased HIF1A stability and transcriptional activity. Ubiquitinated; in normoxia, following hydroxylation and interaction with VHL. Lys-532 appears to be the principal site of 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.

## 細胞内局在

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

## 画像



**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.

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