abcam

Product datasheet

Anti-HIF-2-alpha antibody [OTI2G5] ab157249

敲除验证

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概述

产品名称	Anti-HIF-2-alpha抗体[OTI2G5]
描述	小鼠单克隆抗体[OTI2G5] to HIF-2-alpha
宿主	Mouse
经测试应用	**适用于:** WB
种属反应性	**与反应:** Human
免疫原	Recombinant fragment corresponding to Human HIF-2-alpha aa 584-870. Sequence: LLDKFQQQLESKKTEPEHRPMSSIFFDAGSKASLPPCCGQAS TPLSSMGG RSNTQWPPDPPLHFGPTKWAVGDQRTEFLGAAPLGPPVSPPH VSTFKTRS AKGFGARGPDVLSPAMVALSNKLKLKRQLEYEEQAFQDLSGG DPPGGSTS HLMWKRMKNLRGGSCPLMPDKPLSANVPNDKFTQNPMRGLGH PLRHLPLP QPPSAISPGENSKSRFPPQCYATQYQDYSLSSAHKVSGMASR LLGPSFES YLLPELTRYDCEVNVPVLGSSTLLQGGDLLRALDQAT Run BLAST with Run BLAST with
阳性对照	HEK293T cells transfected with pCMV6-ENTRY HIF-2-alpha.
常规说明	The clone number has been updated from 2G5 to OTI2G5, both clone numbers name the same clone. 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

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 48% PBS, 50% Glycerol, 1% BSA
纯度	Protein G purified
纯化说明	Purified from TCS
克隆	单克隆
克隆编号	OTI2G5
同种型	IgG1

应用

The Abpromise guarantee Abpromise™承诺保证使用ab157249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)	1/2000. Predicted molecular weight: 96 kDa.

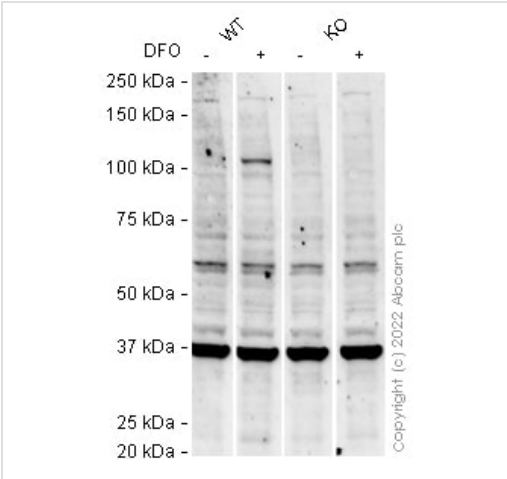
靶标

功能	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 CREBPB and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD.
组织特异性	Expressed in most tissues, with highest levels in placenta, lung and heart. Selectively expressed in endothelial cells.
疾病相关	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.
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.
翻译后修饰	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. In normoxia, is hydroxylated on Asn-847 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.

细胞定位 Nucleus.

图片



Western blot - Anti-HIF-2-alpha antibody [OTI2G5] (ab157249)

All lanes : Anti-HIF-2-alpha antibody [OTI2G5] (ab157249) at 1/500 dilution

Lane 1 : Wild-type A549 Untreated (DFO Control) cell lysate
Lane 2 : Wild-type A549 Treated DFO (1 mM, 24 h) cell lysate
Lane 3 : EPAS1 knockout A549 Untreated (DFO Control) cell lysate
Lane 4 : EPAS1 knockout A549 Treated DFO (1 mM, 24 h) cell lysate

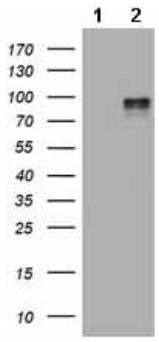
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 96 kDa
Observed band size: 100 kDa

False colour image of Western blot: Anti-HIF-2-alpha antibody [OTI2G5] staining at 1/500 dilution, shown in black; Rabbit Anti-GAPDH antibody [EPR16891] (**ab181602**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab157249 was shown to bind specifically to HIF-2-alpha. A band was observed at 100 kDa in treated wild-type A549 cell lysates with no signal observed at this size in EPAS1 knockout cell line **ab259774** (knockout cell lysate **ab259779**). To generate this image, wild-type and EPAS1 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % BSA in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times before development with Optiblot (ECL reagent **ab133456**) and imaged with 20 seconds exposure time. Secondary antibodies used were HRP conjugated Goat anti-Mouse (H+L) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed

(**ab216777**) at 1/20000 dilution.



Western blot - Anti-HIF-2-alpha antibody [OTI2G5] (ab157249)

All lanes : Anti-HIF-2-alpha antibody [OTI2G5] (ab157249) at 1/2000 dilution

Lane 1 : HEK293T cells transfected with pCMV6-ENTRY control
Lane 2 : HEK293T cells transfected with pCMV6-ENTRY HIF2 alpha

Lysates/proteins at 5 µg per lane.

Predicted band size: 96 kDa

HEK293T cell lysates were generated from transient transfection of the cDNA clone (RC216194)

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