abcam

Product datasheet

Anti-FOXO1A antibody [EPR12020] ab179450

敲除验证 重组 RabMAb

18 References 7 图像

概述

产品名称	Anti-FOXO1A抗体[EPR12020]
描述	兔单克隆抗体[EPR12020] to FOXO1A
宿主	Rabbit
特异性	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat. See **IHC antigen retrieval protocols**.
经测试应用	**适用于:** WB, IHC-P **不适用于:** Flow Cyt,ICC/IF or IP
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Recombinant fragment within Human FOXO1A aa 450-650. The exact sequence is proprietary. Database link: **Q12778**
阳性对照	WB: HepG2, HeLa, HEK-293, Mouse heart, Rat heart, and Rat spleen lysates. IHC-P: human tonsil and DLBCL tissues.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

纯度	Protein A purified
克隆	单克隆
克隆编号	EPR12020
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab179450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 - 1/10000. Predicted molecular weight: 69 kDa.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.

应用说明 Is unsuitable for Flow Cyt,ICC/IF or IP.

靶标

功能 Transcription factor which acts as a regulator of cell responses to oxidative stress. In the presence of KIRT1, mediates down-regulation of cyclin D1 and up-regulation of CDKN1B levels which are required for cell transition from proliferative growth to quiescence.

组织特异性 Ubiquitous.

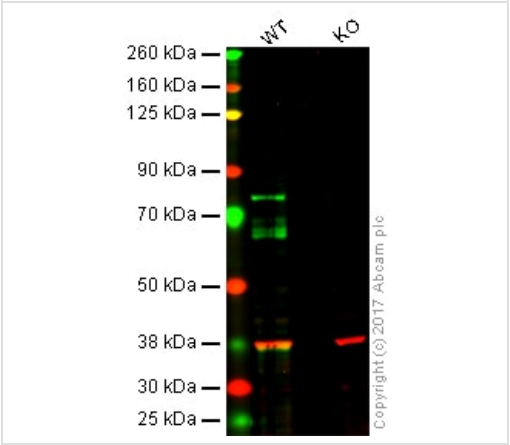
疾病相关 Defects in FOXO1 are a cause of rhabdomyosarcoma type 2 (RMS2) [MIM:268220]. It is a form of rhabdomyosarcoma, a highly malignant tumor of striated muscle derived from primitive mesenchimal cells and exhibiting differentiation along rhabdomyoblastic lines. Rhabdomyosarcoma is one of the most frequently occurring soft tissue sarcomas and the most common in children. It occurs in four forms: alveolar, pleomorphic, embryonal and botryoidal rhabdomyosarcomas. Note=Chromosomal aberrations involving FOXO1 are found in rhabdomyosarcoma. Translocation (2;13)(q35;q14) with PAX3; translocation t(1;13)(p36;q14) with PAX7. The resulting protein is a transcriptional activator.

序列相似性 Contains 1 fork-head DNA-binding domain.

翻译后修饰 Phosphorylated by AKT1; insulin-induced (By similarity). IGF1 rapidly induces phosphorylation of Ser-256, Thr-24, and Ser-319. Phosphorylation of Ser-256 decreases DNA-binding activity and promotes the phosphorylation of Thr-24, and Ser-319, permitting phosphorylation of Ser-322 and Ser-325, probably by CK1, leading to nuclear exclusion and loss of function. Phosphorylation of Ser-329 is independent of IGF1 and leads to reduced function. Phosphorylated upon DNA damage, probably by ATM or ATR.

细胞定位 Cytoplasm. Nucleus. Shuttles between cytoplasm and nucleus.

图片

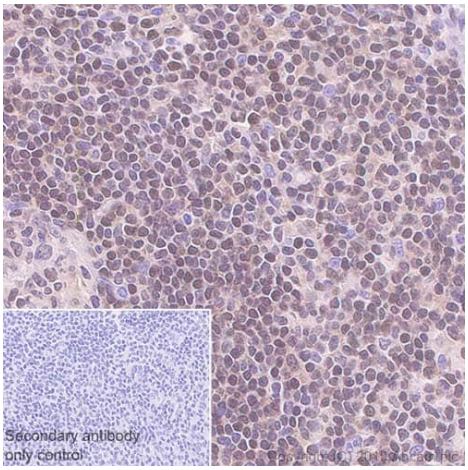


Western blot - Anti-FOXO1A antibody [EPR12020] (ab179450)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: FOXO1A knockout HAP1 whole cell lysate (20 µg)

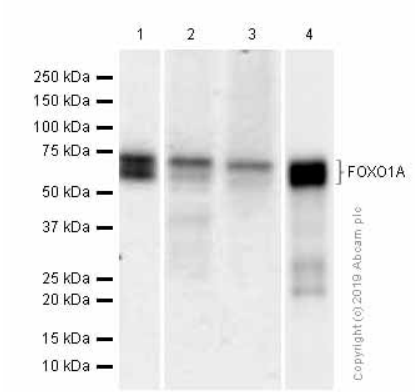
Lanes 1 - 2: Merged signal (red and green). Green - ab179450 observed at 69 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

Unpurified ab179450 was shown to specifically react with FOXO1 (FOXO1A) in wild-type HAP1 cells along with additional cross reactive bands. No bands were observed when FOXO1 (FOXO1A) knockout cells were examined. Wild-type and FOXO1 (FOXO1A) knockout samples were subjected to SDS-PAGE. Ab179450 and **ab9484** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXO1A antibody [EPR12020] (ab179450)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue sections labeling FOXO1A with purified ab179450 at 1/250 dilution (4.73 µg/ml). Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-FOXO1A antibody [EPR12020] (ab179450)

All lanes : Anti-FOXO1A antibody [EPR12020] (ab179450) at 1/1000 dilution (Purified)

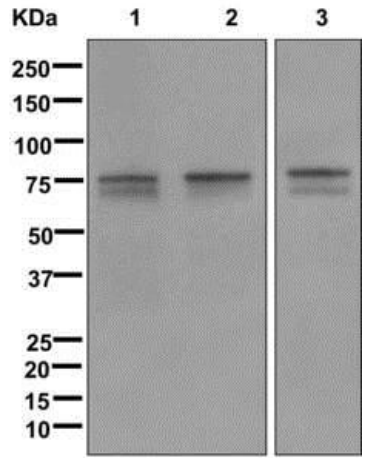
Lane 1 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates
Lane 2 : Mouse heart lysates
Lane 3 : Rat heart lysates
Lane 4 : Rat spleen lysates

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 69 kDa
Observed band size: 70-75 kDa

The molecular weight observed is consistent with what has been described in PMID: 20406953



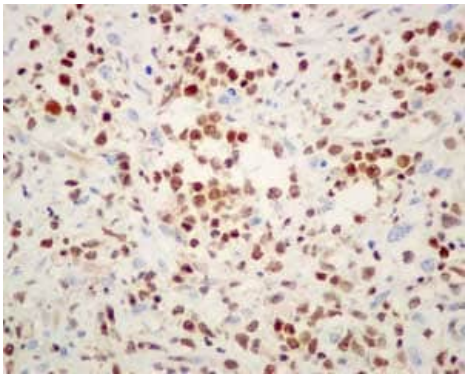
Western blot - Anti-FOXO1A antibody [EPR12020] (ab179450)

All lanes : Anti-FOXO1A antibody [EPR12020] (ab179450) at 1/1000 dilution ((unpurified))

Lane 1 : HepG2 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : 293T cell lysate

Lysates/proteins at 10 µg per lane.

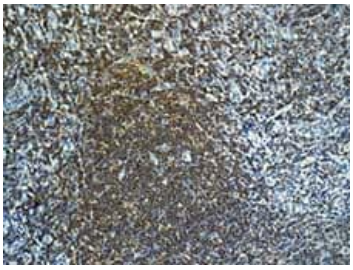
Predicted band size: 69 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXO1A antibody [EPR12020] (ab179450)

Immunohistochemical analysis of paraffin-embedded Human DLBCL tissue labeling FOXO1A with unpurified ab179450 at 1/250 dilution.

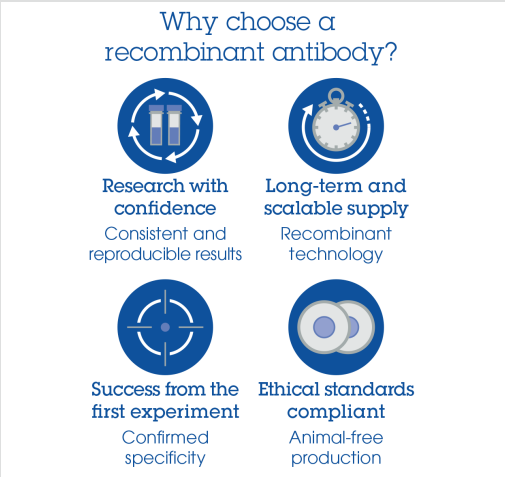
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXO1A antibody [EPR12020] (ab179450)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling FOXO1A with unpurified ab179450 at 1/250 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Anti-FOXO1A antibody [EPR12020] (ab179450)

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