abcam

Product datasheet

Anti-FOXA1 antibody [EPR10881] ab170933

敲除验证 重组 RabMAb

★★★★★ 1 Abreviews 28 References 12 图像

概述

产品名称	Anti-FOXA1抗体[EPR10881]
描述	兔单克隆抗体[EPR10881] to FOXA1 - ChIP Grade
宿主	Rabbit
经测试应用	**适用于:** Flow Cyt (Intra), WB, IHC-P, ICC/IF **不适用于:** ChIP
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Recombinant fragment within Human FOXA1 aa 350 to the C-terminus. The exact sequence is proprietary. Database link: **P55317**
阳性对照	WB: HeLa, Hap1, SW480 and HepG2 whole cell lysate (**ab7900**). Mouse and rat lung lysates IHC-P: Human breast carcinoma & prostate tissue, mouse liver, Rat pancreas tissue. ICC/IF: PC-3 and HepG2 cells.
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: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
纯度	Protein A purified
克隆	单克隆

克隆编号	EPR10881
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab170933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
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB	★★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 49 kDa.
IHC-P		1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use 1/100 - 1/250**
ICC/IF		1/100 - 1/250.

应用说明 Is unsuitable for ChIP.

靶标

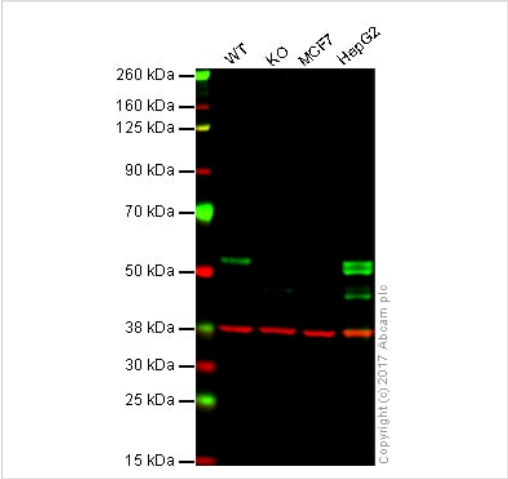
功能 Transcription factor that is involved in embryonic development, establishment of tissue-specific gene expression and regulation of gene expression in differentiated tissues. Is thought to act as a 'pioneer' factor opening the compacted chromatin for other proteins through interactions with nucleosomal core histones and thereby replacing linker histones at target enhancer and/or promoter sites. Binds DNA with the consensus sequence 5'-[AC]A[AT]T[AG]TT[GT][AG][CT]T[CT]-3' (By similarity). Proposed to play a role in translating the epigenetic signatures into cell type-specific enhancer-driven transcriptional programs. Its differential recruitment to chromatin is dependent on distribution of histone H3 methylated at 'Lys-5' (H3K4me2) in estrogen-regulated genes. Involved in the development of multiple endoderm-derived organ systems such as liver, pancreas, lung and prostate; FOXA1 and FOXA2 seem to have at least in part redundant roles (By similarity). Modulates the transcriptional activity of nuclear hormone receptors. Is involved in ESR1-mediated transcription; required for ESR1 binding to the NKX2-1 promoter in breast cancer cells; binds to the RPRM promter and is required for the estrogen-induced repression of RPRM. Involved in regulation of apoptosis by inhibiting the expression of BCL2. Involved in cell cycle regulation by activating expression of CDKN1B, alone or in conjunction with BRCA1. Originally discribed as a transcription activator for a number of liver genes such as AFP, albumin, tyrosine aminotransferase, PEPCK, etc. Interacts with the cis-acting regulatory regions of these genes. Involved in glucose homeostasis.

组织特异性 Highly expressed in prostate and ESR1-positive breast tumors. Overexpressed in esophageal and lung adenocarcinomas.

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

细胞定位 Nucleus.

图片



Western blot - Anti-FOXA1 antibody [EPR10881] (ab170933)

All lanes : Anti-FOXA1 antibody [EPR10881] (ab170933) at 1/1000 dilution

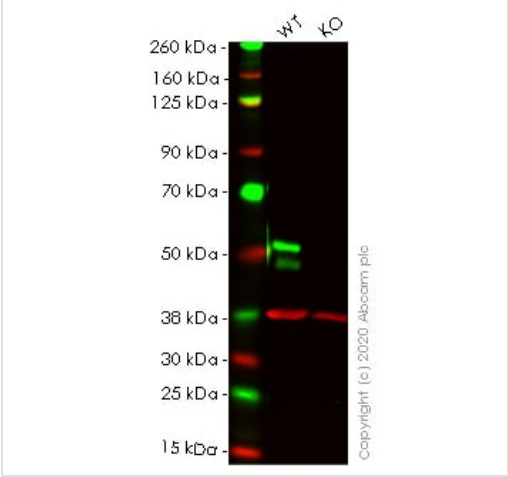
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : FOXA1 knockout HAP1 whole cell lysate
Lane 3 : MCF7 whole cell lysate
Lane 4 : HepG2 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 49 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab170933 observed at 52 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

Unpurified ab170933 was shown to specifically react with FOXA1 in wild-type HAP1 cells as signal was lost in FOXA1 knockout cells. Wild-type and FOXA1 knockout samples were subjected to SDS-PAGE. Ab170933 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 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 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-FOXA1 antibody [EPR10881] (ab170933)

All lanes : Anti-FOXA1 antibody [EPR10881] (ab170933) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : FOXA1 knockout HeLa cell lysate

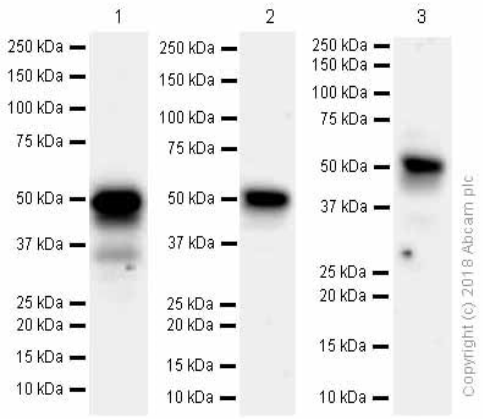
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 49 kDa
Observed band size: 52 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab170933 observed at 52 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab170933 was shown to react with FOXA1 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab261823** (knockout cell lysate **ab256920**) was used. Wild-type HeLa and FOXA1 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab170933 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-FOXA1 antibody [EPR10881] (ab170933)

All lanes : Anti-FOXA1 antibody [EPR10881] (ab170933) at 1.1 µg/ml (purified)

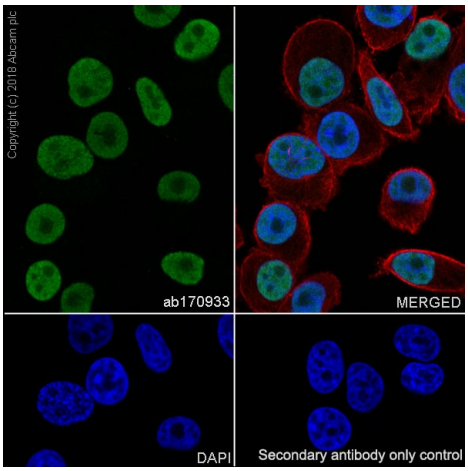
Lane 1 : SW480 (Human colorectal adenocarcinoma epithelial cell) whole cell lysates
Lane 2 : Mouse lung lysates
Lane 3 : Rat lung lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

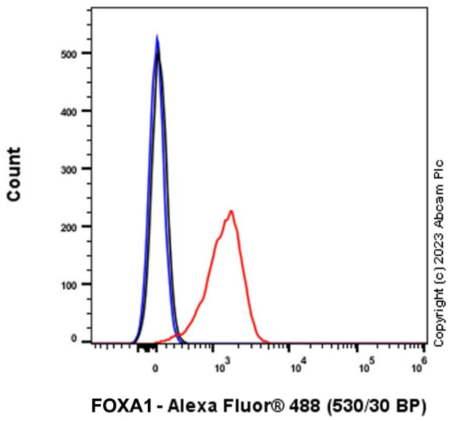
Predicted band size: 49 kDa
Observed band size: 49 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



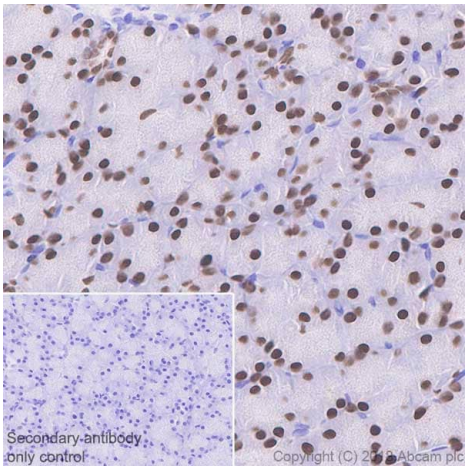
Immunocytochemistry/ Immunofluorescence - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunocytochemistry/ Immunofluorescence analysis of PC-3 (Human prostate adenocarcinoma epithelial cell) cells labeling FOXA1 with Purified ab170933 at 1:100 dilution (11 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor®594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor®488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



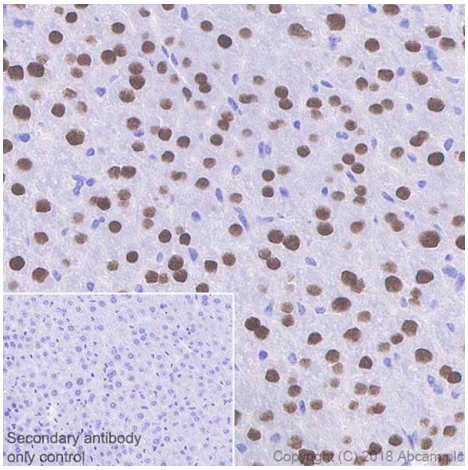
Flow Cytometry (Intracellular) - Anti-FOXA1 antibody [EPR10881] (ab170933)

Intracellular Flow Cytometry analysis of PC-3 (human prostate adenocarcinoma epithelial cell) cells labeling FOXA1 with purified ab170933 at 1/50 dilution (1 ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150081**) (1/5000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



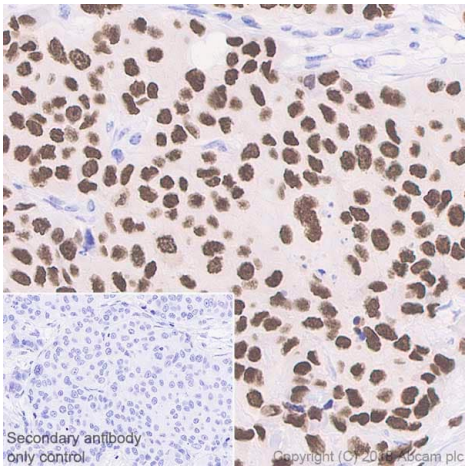
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat pancreas tissue sections labeling FOXA1 with Purified ab170933 at 1:1000 dilution (1.13 µg/ml). Heat mediated antigen retrieval was performed 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.Hematoxylinwas used as a counterstain



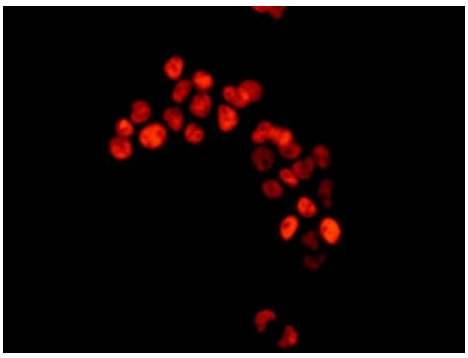
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse liver tissue sections labeling FOXA1 with Purified ab170933 at 1:1000 dilution (1.13 µg/ml). Heat mediated antigen retrieval was performed 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.Hematoxylinwas used as a counterstain



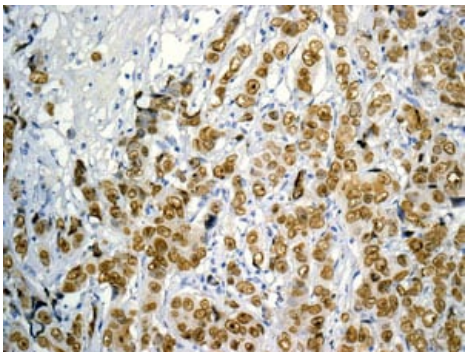
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast cancer tissue sections labeling FOXA1 with Purified ab170933 at 1:1000 dilution (1.13 µg/ml). Heat mediated antigen retrieval was performed 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.Hematoxylinwas used as a counterstain.



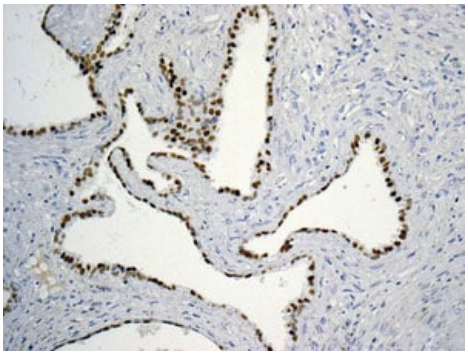
Immunocytochemistry/ Immunofluorescence - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunofluorescence analysis of HepG2 cells labeling FOXA1 with unpurified ab170933 at 1/100 dilution.



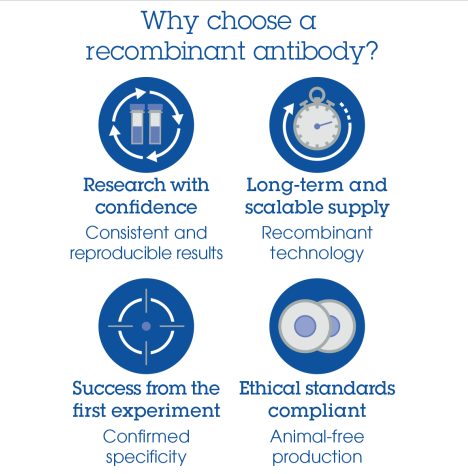
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labeling FOXA1 with unpurified ab170933 at 1/100 dilution. Heat mediated antigen retrieval was performed using citrate buffer pH 6.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA1 antibody [EPR10881] (ab170933)

Immunohistochemical analysis of paraffin-embedded Human prostate tissue labeling FOXA1 with unpurified ab170933 at 1/100 dilution. Heat mediated antigen retrieval was performed using citrate buffer pH 6.0 before commencing with IHC staining protocol.



Anti-FOXA1 antibody [EPR10881] (ab170933)

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