abcam

Product datasheet

Anti-FOXA2 antibody [EPR4466] ab108422

Recombinant RabMAb

10 Abreviews 86 References 10 Images

Overview

Product name	Anti-FOXA2 antibody [EPR4466]
Description	Rabbit monoclonal [EPR4466] to FOXA2
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human colon cancer, fetal colon and mouse lung tissue lysates and HepG2 whole cell lysate (**ab7900**). IHC-P: Human hepatocellular carcinoma and mouse liver tissue; Human colon tissue; Mouse brain (substantia nigra) tissue. ICC/IF: HT-29 cells.
General notes	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**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR4466
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108422 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 52 kDa. **For unpurified use at 1/1000 - 1/10000.**
IHC-P	★★★★★ **(6)**	1/500 - 1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/250 - 1/500.**
ICC/IF		1/300. **For unpurified use at 1/250 - 1/500.**

Target

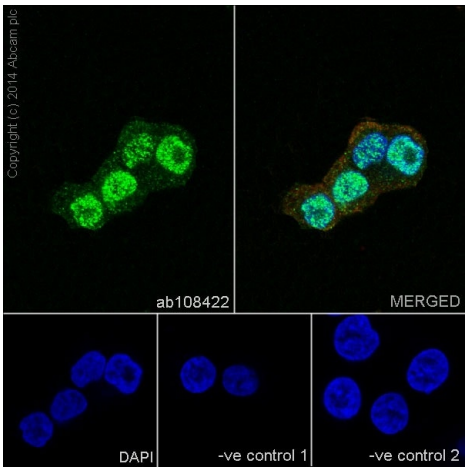
Function Transcription factor that is involved in embryonic development, establishment of tissue-specific gene expression and regulation of gene expression in differentiated tissues. Is thought to act as a 'pioneer' factor opening the compacted chromatin for other proteins through interactions with nucleosomal 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). In embryonic development is required for notochord formation. Involved in the development of multiple endoderm-derived organ systems such as the liver, pancreas and lungs; FOXA1 and FOXA2 seem to have at least in part redundant roles. 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; regulates the expression of genes important for glucose sensing in pancreatic beta-cells and glucose homeostasis. Involved in regulation of fat metabolism. Binds to fibrinogen beta promoter and is involved in IL6-induced fibrinogen beta transcriptional activation.

Sequence similarities Contains 1 fork-head DNA-binding domain.

Post-translational modifications Phosphorylation on Thr-156 abolishes binding to target promoters and subsequent transcription activation upon insulin stimulation.

Cellular localization Nucleus. Cytoplasm. Shuttles between the nucleus and cytoplasm in a CRM1-dependent manner and in response to insulin signaling via AKT1 is exported from the nucleus.

Images

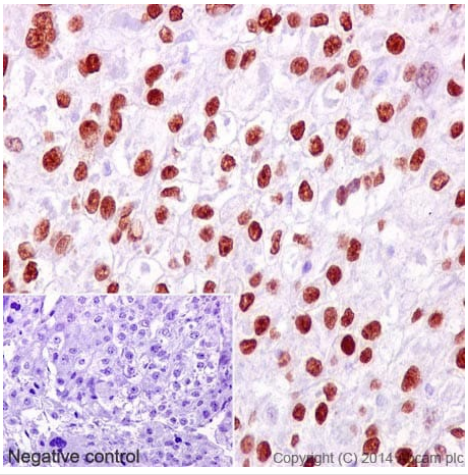


Immunocytochemistry/ Immunofluorescence - Anti-FOXA2 antibody [EPR4466] (ab108422)

Immunocytochemistry/Immunofluorescence analysis of HT-29 cells labelling FOXA2 with purified ab108422 at 1/300. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. **ab7291**, a mouse anti-tubulin (1/500) and **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500) were also used.

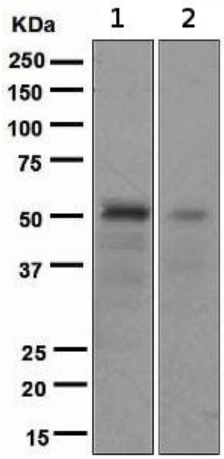
-ve control 1: primary antibody (1/300) and secondary antibody, **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

-ve control 2: **ab7291** (1/1000) and secondary antibody, **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA2 antibody [EPR4466] (ab108422)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue labelling FOXA2 with purified ab108422 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-FOXA2 antibody [EPR4466] (ab108422)

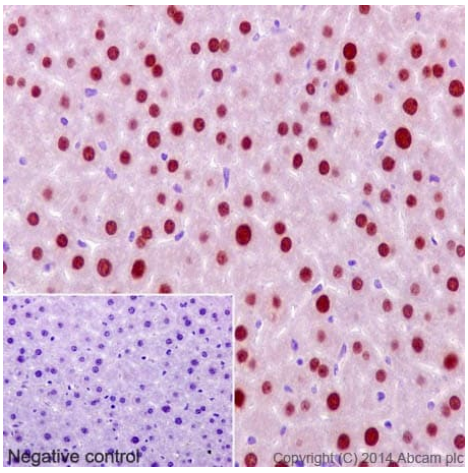
All lanes : Anti-FOXA2 antibody [EPR4466] (ab108422) at 1/1000 dilution (unpurified)

Lane 1 : Human fetal colon tissue lysate
Lane 2 : HepG2 (human liver hepatocellular carcinoma cell line) cell lysate

Lysates/proteins at 10 µg per lane.

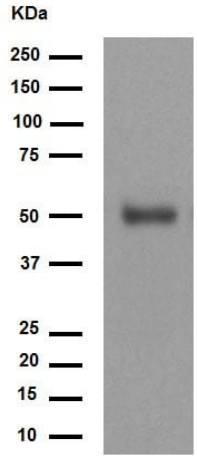
Secondary
All lanes : HRP-conjugated goat anti-rabbit IgG

Predicted band size: 52 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA2 antibody [EPR4466] (ab108422)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue labelling FOXA2 with purified ab108422 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-FOXA2 antibody [EPR4466] (ab108422)

Anti-FOXA2 antibody [EPR4466] (ab108422) at 1/10000 dilution (purified) + Human colon cancer tissue lysate at 20 µg

Secondary

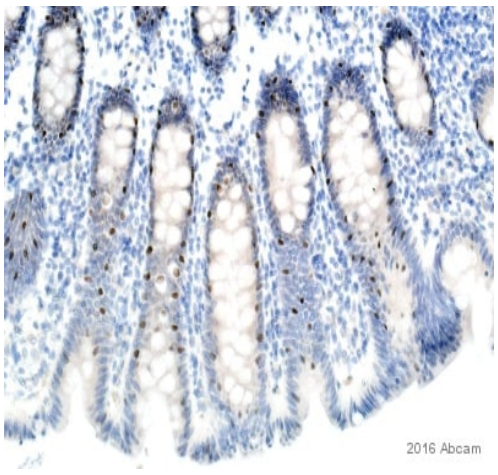
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 52 kDa

Observed band size: 52 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

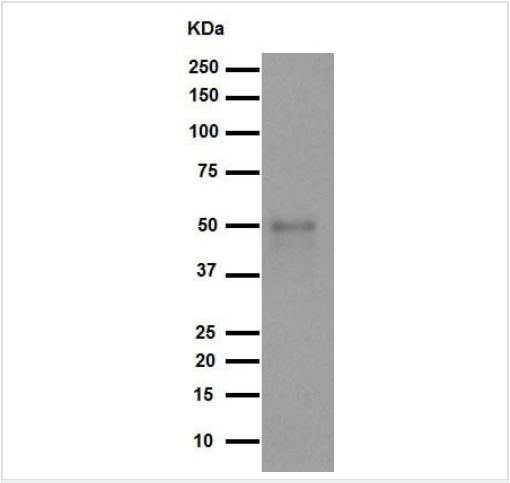
Diluting buffer and concentration: 5% NFDM /TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA2 antibody [EPR4466] (ab108422)

This image is courtesy of Carl Hobbs, King's College London, United Kingdom

Immunohistochemical analysis of Formalin/PFA-fixed paraffin-embedded human colon sections labelling FOXA2 with ab108422 at dilution of 1/500. The secondary antibody used was a polyclonal goat anti-rabbit biotin conjugated antibody at a dilution of 1/300. The sample was counterstained with hematoxylin. Antigen retrieval was heat mediated using citric acid.



Western blot - Anti-FOXA2 antibody [EPR4466] (ab108422)

Anti-FOXA2 antibody [EPR4466] (ab108422) at 1/2000 dilution (purified) + Mouse lung tissue lysate at 20 µg

Secondary

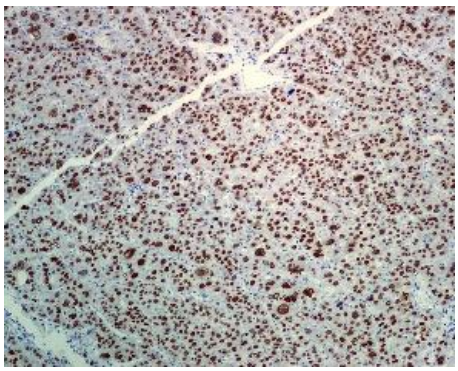
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 52 kDa

Observed band size: 52 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

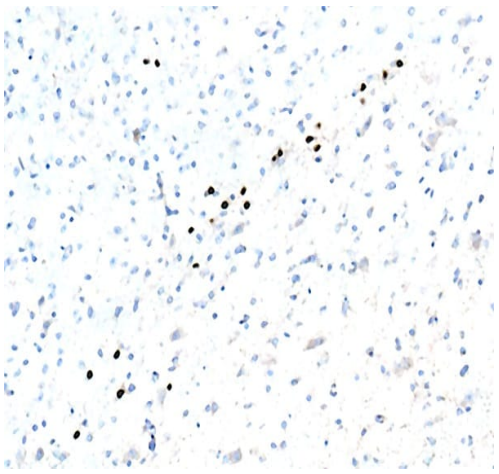
Diluting buffer and concentration: 5% NFDM /TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA2 antibody [EPR4466] (ab108422)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue labelling FOXA2 with unpurified ab108422 at a 1/250 dilution.

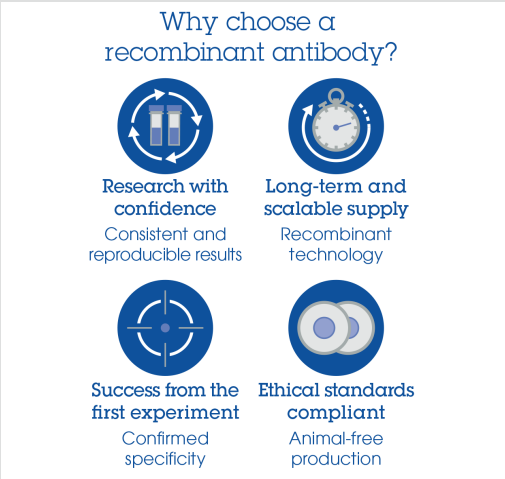
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FOXA2 antibody [EPR4466] (ab108422)

This image is courtesy of Carl Hobbs, King's College London, United Kingdom

ab108422 staining of FOXA2 in mouse brain (substantia nigra) tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Heat-mediated antigen retrieval was carried out using citric acid. Samples were incubated with primary antibody (1/500) for two hours at room temperature. A Biotin-conjugated goat anti-rabbit IgG polyclonal was used as the secondary antibody.



Anti-FOXA2 antibody [EPR4466] (ab108422)

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