# abcam

## Product datasheet

## Anti-FOXAl antibody [SP88] ab99892

Recombinant RabMAb

1 References 5 Images

Overview

Product name Anti-FOXA1 antibody [SP88]

**Description** Rabbit monoclonal [SP88] to FOXA1

Host species Rabbit

Tested applications Suitable for: Flow Cyt, ICC/IF, IHC-P

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Immunogen Synthetic peptide within Human FOXA1 aa 400 to the C-terminus (C terminal). The exact

sequence is proprietary.

Database link: P55317

**Positive control** IHC-P: Human Prostate tissue.

**General notes**This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

Improved sensitivity and specificityLong-term security of supplyAnimal-free production

For more information see here.

This product is FOR RESEARCH USE ONLY. For commercial use, please contact

partnerships@abcam.com.

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.60

Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA

**Purity** Protein A/G purified

**Purification notes** Purified from TCS by protein A/G.

**Clonality** Monoclonal

1

Clone number SP88 lsotype lqG

#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab99892 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
Flow Cyt		Use at an assay dependent concentration. <u>ab172730</u> - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 5 µg/ml.
IHC-P		1/100. Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

#### **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). 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.

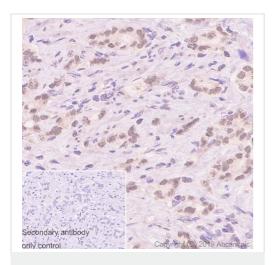
### Tissue specificity

Highly expressed in prostate and ESR1-positive breast tumors. Overexpressed in esophageal and lung adenocarcinomas.

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

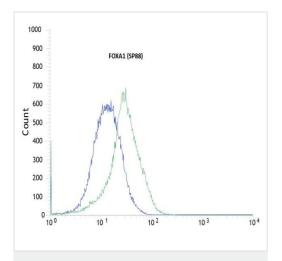
Cellular localization Nucleus.

#### **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-FOXA1 antibody [SP88] (ab99892)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human prostate carcinoma tissue sections labeling FOXA1 with Purified ab99892 at 1/100 dilution (0.06 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 30mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



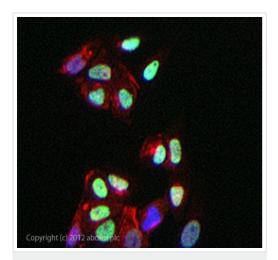
Flow Cytometry (Intracellular) - Anti-FOXA1 antibody [SP88] (ab99892)

Flow cytometric analysis of rabbit anti-FOXA1 (SP88) antibody ab99892 in HepG2 cells (green) compared to negative control of rabbit lgG (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-FOXA1 antibody [SP88] (ab99892)

Staining of Human FOXA1 in a Formalin/PFA-fixed paraffinembedded section of Human Prostate using ab99892 at a dilution of 1/100.



Immunocytochemistry/ Immunofluorescence - Anti-FOXA1 antibody [SP88] (ab99892)

ab99892 stained MCF-7 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab99892 at 5 $\mu$ g/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) lgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43 $\mu$ M.



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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