

For Research Use Only

# FOXA1 Polyclonal antibody

Catalog Number: 20411-1-AP

9 Publications



## Basic Information

|   |  |  |
|---|--|--|
| <b>Catalog Number:</b><br>20411-1-AP                          | <b>GenBank Accession Number:</b><br>BC033890 | <b>Purification Method:</b><br>Antigen affinity purification |
| <b>Size:</b><br>150ul , Concentration: 500 ug/ml by Nanodrop; | <b>GeneID (NCBI):</b><br>3169                | <b>Recommended Dilutions:</b><br>WB 1:1000-1:4000            |
| <b>Source:</b><br>Rabbit                                      | <b>UNIPROT ID:</b><br>P55317                 | <b>IHC 1:50-1:500</b>  |
| <b>Isotype:</b><br>IgG  | <b>Full Name:</b><br>forkhead box A1         | <b>IF/ICC 1:50-1:500</b>                                     |
| <b>Immunogen Catalog Number:</b><br>AG14243                   | <b>Calculated MW:</b><br>473 aa, 49 kDa      |  |
|   | <b>Observed MW:</b><br>50 kDa                |  |

## Applications

|  |   |
|--|---|
| <b>Tested Applications:</b><br>WB, IHC, IF/ICC, ELISA  | <b>Positive Controls:</b>   |
| <b>Cited Applications:</b><br>WB, IP, CoIP   | <b>WB :</b> MCF-7 cells, HepG2 cells, MDA-MB-468 cells and T-47D cells. |
| <b>Species Specificity:</b><br>human   | <b>IHC :</b> human urothelial carcinoma tissue,                         |
| <b>Cited Species:</b><br>human, mouse  | <b>IF/ICC :</b> MCF-7 cells,  |
| <b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b> |   |

## Background Information

Forkhead box A1(FOXA1),also named hepatocyte nuclear factor 3-alpha (HNF-3A), is a 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 promoter 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 described as a transcription activator for a number of liver genes such as AFP, albumin, tyrosine aminotransferase, PEPCCK, etc. Interacts with the cis-acting regulatory regions of these genes. Involved in glucose homeostasis.

## Notable Publications

| Author     | Pubmed ID | Journal               | Application |
|------------|-----------|-----------------------|-------------|
| Zipeng Xie | 32931885  | Cancer Lett           | WB          |
| Lijun Li   | 36064451  | Stem Cell Res Ther    | WB          |
| Wentao Liu | 35081978  | J Exp Clin Cancer Res | WB          |

## Storage

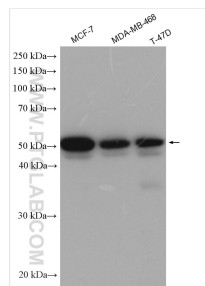
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

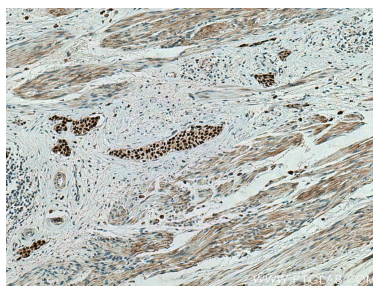
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
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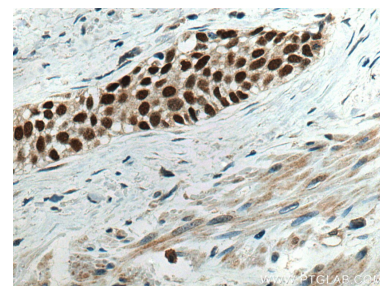
## Selected Validation Data



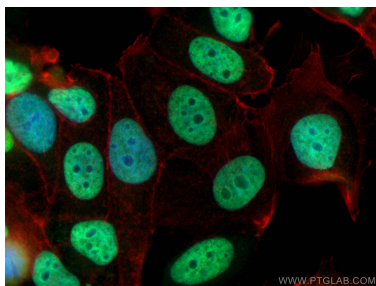
Various lysates were subjected to SDS PAGE followed by western blot with 20411-1-AP (FOXA1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma tissue slide using 20411-1-AP (FOXA1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma tissue slide using 20411-1-AP (FOXA1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using FOXA1 antibody (20411-1-AP) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).