

FOXA1 Antibody (C-Terminus) Goat Polyclonal Antibody Catalog # ALS12855

Specification

FOXA1 Antibody (C-Terminus) - Product Information

Application Primary Accession Reactivity

Host Clonality Calculated MW WB, IHC <u>P55317</u> Human, Mouse, Rat, Zebrafish, Hamster, Monkey, Pig, Xenopus, Bovine Goat Polyclonal 49kDa KDa

FOXA1 Antibody (C-Terminus) - Additional Information

Gene ID 3169

Other Names Hepatocyte nuclear factor 3-alpha, HNF-3-alpha, HNF-3A, Forkhead box protein A1, Transcription factor 3A, TCF-3A, FOXA1, HNF3A, TCF3A

Target/Specificity Human FOXA1.

Reconstitution & Storage Store at -20°C. Minimize freezing and thawing.

Precautions FOXA1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

FOXA1 Antibody (C-Terminus) - Protein Information

Name FOXA1

Synonyms HNF3A, TCF3A

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 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, PEPCK, etc. Interacts with the cis-acting regulatory regions of these genes. Involved in glucose homeostasis.

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00089, ECO:0000269|PubMed:15987773, ECO:0000269|PubMed:16331276}

Tissue Location

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

FOXA1 Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

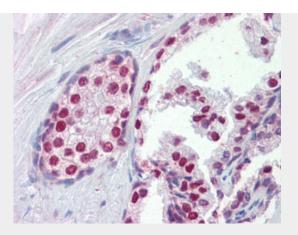
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

FOXA1 Antibody (C-Terminus) - Images



Antibody (0.3 ul/ml) staining of HepG2 cell lysate (35 ug protein in RIPA buffer).





Anti-FOXA1 antibody IHC of human prostate. FOXA1 Antibody (C-Terminus) - Background

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FOXA1 Antibody (C-Terminus) - References

Bingle C.D., et al. Biochim. Biophys. Acta 1307:17-20(1996). Navas M.A., et al. Hum. Hered. 50:370-381(2000). Yu L., et al. Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases. Ota T., et al. Nat. Genet. 36:40-45(2004). Heilig R., et al. Nature 421:601-607(2003).