

Goat Anti-FOXA1 / HNF3A Antibody
Peptide-affinity purified goat antibody
Catalog # AF1425a

Specification

Goat Anti-FOXA1 / HNF3A Antibody - Product Information

Application	IHC, WB
Primary Accession	P55317
Other Accession	NP_004487 , 3169 , 15375 (mouse) , 25098 (rat)
Reactivity	Human, Mouse
Predicted	Rat, Pig
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	49148

Goat Anti-FOXA1 / HNF3A Antibody - 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

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-FOXA1 / HNF3A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-FOXA1 / HNF3A Antibody - 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

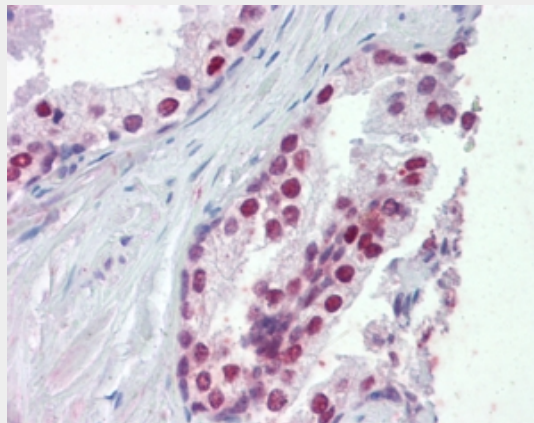
Highly expressed in prostate and ESR1-positive breast tumors. Overexpressed in esophageal and lung adenocarcinomas

Goat Anti-FOXA1 / HNF3A Antibody - Protocols

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

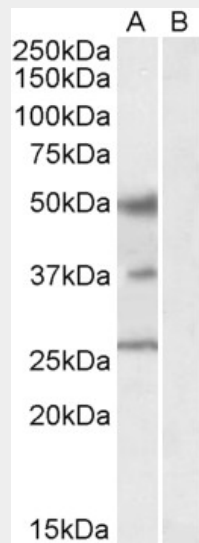
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-FOXA1 / HNF3A Antibody - Images



AF1425a (5 µg/ml) staining of paraffin embedded Human Prostate. Steamed antigen retrieval

with citrate buffer pH 6, AP-staining.



AF1425a (1 µg/ml) staining of HepG2 lysate (35 µg protein in RIPA buffer) with (B) and without (A) blocking with the immunizing peptide. Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-FOXA1 / HNF3A Antibody - Background

This gene encodes a member of the forkhead class of DNA-binding proteins. These hepatocyte nuclear factors are transcriptional activators for liver-specific transcripts such as albumin and transthyretin, and they also interact with chromatin. Similar family members in mice have roles in the regulation of metabolism and in the differentiation of the pancreas and liver.

Goat Anti-FOXA1 / HNF3A Antibody - References

[Diagnostic and prognostic significance of FOXA1 expression in molecular subtypes of breast invasive ductal carcinomas] Liu N, et al. *Zhonghua Yi Xue Za Zhi*, 2010 May 25. PMID 20646630.
FOXA1 is an essential determinant of ERalpha expression and mammary ductal morphogenesis. Bernardo GM, et al. *Development*, 2010 Jun. PMID 20501593.
Loss of FOXA1/2 is essential for the epithelial-to-mesenchymal transition in pancreatic cancer. Song Y, et al. *Cancer Res*, 2010 Mar 1. PMID 20160041.
ErbB3 binding protein 1 represses metastasis-promoting gene anterior gradient protein 2 in prostate cancer. Zhang Y, et al. *Cancer Res*, 2010 Jan 1. PMID 20048076.
Forkhead box A1 transcriptional pathway in KRT7-expressing esophageal squamous cell carcinomas with extensive lymph node metastasis. Sano M, et al. *Int J Oncol*, 2010 Feb. PMID 20043065.