FOXA1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	FOXA1, Polyclonal Antibody
Full Product Name	FOXA1 Rabbit anti-Human Polyclonal Antibody
Product Gene Name	anti-FOXA1 antibody
Product Synonym Names	IHC-plus FOXA1 Antibody; FOXA1; Forkhead box A1; Forkhead box protein A1; HNF-3-alpha; HNF-3A; TCF-3A; TCF3A; HNF3A; Transcription factor 3A
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS, 0.1% Sodium Azide
Purity/Purification	Immunoaffinity purified
Concentration	1mg/ml (lot specific)
Preparation and Storage	Aliquot and store undiluted at -20 degree C or below for up to 1 year. Can be stored undiluted at 4 degree C for up to 1 month. Avoid freeze-thaw cycles.
Molecular Weight	49148 MW
OMIM	602294
3D Structure	ModBase 3D Structure for P55317
Target	Human FOXA1
Immunogen	LP-11076, synthetic peptide
Conjugation	Unconjugated
Family	Transcription factor
Applications Tested/Suitable for anti-FOXA1 antibody	Immunohistochemistry-Paraffin (IHC-P)
Related Product Information for anti-FOXA1 antibody	FOXA1 antibody is an unconjugated rabbit polyclonal antibody to FOXA1 from human. Validated for IHC. Tested on 20 paraffin-embedded human tissues.
Other Notes	Small volumes of anti-FOXA1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for FOXA1 purchase	MBS2403226 is an antibody targeting FOXA1. Also known as FOXA1 Rabbit anti-Human Polyclonal Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FOXA1. It may not necessarily be applicable to this product.

NCBI GI #	24497501
NCBI GeneID	3169
NCBI Accession #	NP_004487.2

UniProt Primary Accession #	P55317
UniProt Secondary Accession #	Q9H2A0; B2R9H6; B7ZAP5
UniProt Related Accession #	P55317
GenBank Nucleotide #	NM_004496
NCBI Official Full Name	hepatocyte nuclear factor 3-alpha
NCBI Official Synonym Full Names	forkhead box A1
NCBI Official Symbol	FOXA1
NCBI Official Synonym Symbols	HNF3A; TCF3A
UniProt Protein Name	Hepatocyte nuclear factor 3-alpha
UniProt Synonym Protein Names	Forkhead box protein A1; Transcription factor 3A; TCF-3A
Protein Family	Forkhead box protein
UniProt Gene Name	FOXA1
UniProt Synonym Gene Names	HNF3A; TCF3A; HNF-3-alpha; HNF-3A; TCF-3A
UniProt Entry Name	FOXA1_HUMAN
NCBI Protein Information	hepatocyte nuclear factor 3-alpha
NCBI Summary for FOXA1	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. [provided by RefSeq, Jul 2008]

UniProt Comments for FOXA1	FOXA1: 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'. 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. 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 p27Kip1, 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. Binds DNA as a monomer. Interacts with FOXA2. Interacts with NKX2-1. Interacts with HDAC7. Interacts with the histone H3-H4 heterodimer. Associates with nucleosomes containing histone H2A. Interacts with AR. Interacts with NR0B2. Highly expressed in prostate and ESR1-positive breast tumors. Overexpressed in esophageal and lung adenocarcinomas. Protein type: Transcription factor; DNA-binding Chromosomal Location of Human Ortholog: 14q21.1 Cellular Component: microvillus; nucleolus; nucleus Molecular Function: protein domain specific binding; DNA binding; sequence-specific DNA binding; transcription factor activity; transcription factor binding Biological Process: transcription from RNA polymerase II promoter; positive regulation of estrogen receptor signaling pathway; negative regulation of transcription from RNA polymerase II promoter; glucose homeostasis; positive regulation of mitotic cell cycle; response to estradiol stimulus; chromatin remodeling; anatomical structure formation; positive regulation of smoothened signaling pathway; hormone metabolic process; neuron fate specification; positive regulation of transcription factor activity; positive regulation of transcription from RNA polymerase II promoter; positive regulation of neuron differentiation; dorsoventral neural tube patterning
Research Articles on FOXA1	**1.** Findings suggested FOXA1 may act as an anti-oncogene in gastric cancer (GC) cells. Low-level expression of FOXA1 protein was confirmed in GC tissues and cell lines. FOXA1 over-expression could significantly affect cell proliferation, apoptosis and tumor invasion of GC cells, which may be resulted by reversing EMT.
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