FOXA1 Blocking Peptide

PRODUCT OVERVIEW

Product Name	FOXA1, Blocking Peptide
Full Product Name	FOXA1 Peptide
Product Gene Name	FOXA1 blocking peptide
Product Synonym Gene Name	HNF3A; MGC33105; TCF3A
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	FOXA1 peptide (MBS3229066) is used for blocking the activity of FOXA1 antibody (MBS3204099)
Molecular Weight	49kDa
OMIM	602294
Product Categories/Family for FOXA1 blocking peptide	Peptide
Applications Tested/Suitable for FOXA1 blocking peptide	Western Blot (WB)
Related Product Information for FOXA1 blocking peptide	This is a synthetic peptide designed for use in combination with anti-FOXA1 antibody made Target Description: FOXA1 is 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.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. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications.
Other Notes	Small volumes of FOXA1 blocking peptide 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	MBS3229066 is a blocking peptide targeting FOXA1. Also known as FOXA1 Peptide.

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
UniProt Primary Accession #	P55317
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.** LINC00460 promotes LC progression by competitively binding miR-302c-5p and regulating FOXA1 signal pathway.

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