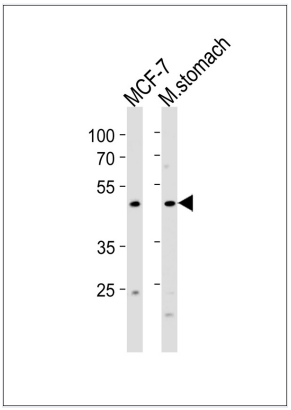
FOXA2 Antibody – Rabbit Polyclonal

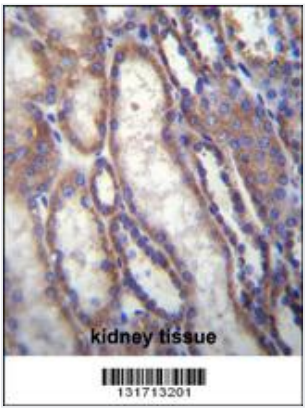
PRODUCT OVERVIEW

Product Name	FOXA2, Polyclonal Antibody
Full Product Name	FOXA2 Antibody (C-term)
Product Gene Name	anti-FOXA2 antibody
Product Synonym Names	Hepatocyte nuclear factor 3-beta; HNF-3-beta; HNF-3B; Forkhead box protein A2; Transcription factor 3B; TCF-3B; FOXA2; HNF3B; TCF3B
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human, rat (Predicted Reactivity: Mouse)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 0.5 (lot specific)
Specificity	This FOXA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 380-407 amino acids from the C-terminal region of human FOXA2.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	FOXA2 peptide (MBS9218809) is used for blocking the activity of FOXA2 antibody (MBS9208947)
Molecular Weight	48306
Immunogen Sequence Positions	380-407
OMIM	600288
3D Structure	ModBase 3D Structure for Q9Y261
Antigen Type	Synthetic Peptide
Crown Antibody	Yes
Antigen Source	HUMAN
Product Categories/Family for anti-FOXA2 antibody	Crown Antibodies; Developmental Biology; Neuroscience
Applications Tested/Suitable for anti-FOXA2 antibody	ELISA (EIA), Immunohistochemistry (IHC), Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-FOXA2 antibody	WB~~1:1000

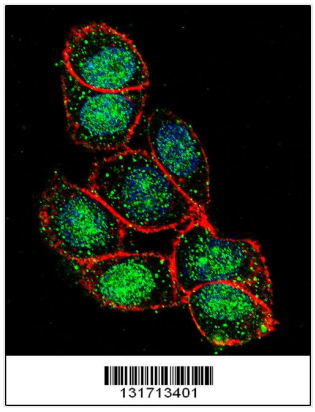
Related Product Information for anti-FOXA2 antibody	This gene encodes a member of the forkhead class of DNA-binding proteins. These hepatocyte nuclear factors are transcriptional activators for liver-specific genes such as albumin and transthyretin, and they also interact with chromatin. Similar family members in mice have roles in the regulation of metabolism and in the differentiation of the pancreas and liver. This gene has been linked to sporadic cases of maturity-onset diabetes of the young. Transcript variants encoding different isoforms have been identified for this gene.
Product References and Citations for anti-FOXA2 antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Banerjee, A., et al. J. Virol. 84(12):5936-5946(2010) Dayoub, R., et al. Biochem. Biophys. Res. Commun. 395(4):465-470(2010) Xing, C., et al. Am. J. Hum. Genet. 86(3):440-446(2010) Song, Y., et al. Cancer Res. 70(5):2115-2125(2010)
Other Notes	Small volumes of anti-FOXA2 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 FOXA2 purchase	MBS9208947 is an antibody targeting FOXA2. Also known as FOXA2 Antibody (C-term). Reactive in Human, rat (Predicted Reactivity: Mouse). Host: Rabbit.



Western Blot (WB) of anti-FOXA2 antibody
FOXA2 Antibody (C-term) western blot analysis in MCF-7 cell line and rat stomach tissue lysates (35ug/lane).This demonstrates the FOXA2 antibody detected the FOXA2 protein (arrow).



Immunohistochemistry (IHC) of anti-FOXA2 antibody
FOXA2 Antibody (C-term) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of FOXA2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Immunofluorescence (IF) of anti-FOXA2 antibody
Confocal immunofluorescent analysis of FOXA2 Antibody (C-term) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FOXA2. It may not necessarily be applicable to this product.

NCBI GI #	194394143
NCBI GeneID	3170
NCBI Accession #	NP_068556.2
NCBI Related Accession #	NP_710141.1
UniProt Primary Accession #	Q9Y261
UniProt Secondary Accession #	Q8WUW4; Q96DF7
UniProt Related Accession #	Q9Y261
GenBank Nucleotide #	NM_021784.4
NCBI Official Full Name	hepatocyte nuclear factor 3-beta isoform 1
NCBI Official Synonym Full Names	forkhead box A2
NCBI Official Symbol	FOXA2
NCBI Official Synonym Symbols	HNF3B; TCF3B
UniProt Protein Name	Hepatocyte nuclear factor 3-beta
UniProt Synonym Protein Names	Forkhead box protein A2; Transcription factor 3B; TCF-3B
Protein Family	Forkhead box protein
UniProt Gene Name	FOXA2
UniProt Synonym Gene Names	HNF3B; TCF3B; HNF-3-beta; HNF-3B; TCF-3B
UniProt Entry Name	FOXA2_HUMAN
NCBI Protein Information	hepatocyte nuclear factor 3-beta
NCBI Summary for FOXA2	This gene encodes a member of the forkhead class of DNA-binding proteins. These hepatocyte nuclear factors are transcriptional activators for liver-specific genes 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 has been linked to sporadic cases of maturity-onset diabetes of the young. Transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Oct 2008]

UniProt Comments for FOXA2	FOXA2: 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'. In embryonic development is required for notochord formation. Involved in the development of multiple endoderm-derived organ systems such as the liver, pancreas and lungs; FOXA1 and FOXA2 seem to have at least in part redundant roles. 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; regulates the expression of genes important for glucose sensing in pancreatic beta-cells and glucose homeostasis. Involved in regulation of fat metabolism. Binds to fibrinogen beta promoter and is involved in IL6-induced fibrinogen beta transcriptional activation. Binds DNA as a monomer. Binds TLE1. Interacts with FOXA1 and FOXA3. Interacts with PRKDC. 2 isoforms of the human protein are produced by alternative splicing. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 20p11 Cellular Component: cytoplasm; nucleus Molecular Function: protein domain specific binding; DNA binding; transcription factor activity; transcription factor binding Biological Process: transcription from RNA polymerase II promoter; adult locomotory behavior; positive regulation of transcription, DNA-dependent; negative regulation of transcription from RNA polymerase II promoter by glucose; cell fate specification; negative regulation of glucokinase activity; cell differentiation in hindbrain; ectoderm formation; regulation of steroid metabolic process; neuron fate specification; positive regulation of smoothened signaling pathway; positive regulation of transcription from RNA polymerase II promoter by glucose; dorsoventral neural tube patterning; in utero embryonic development; negative regulation of transcription factor activity; chromatin modification; somite rostral/caudal axis specification; endocrine pancreas development; regulation of transcription from RNA polymerase II promoter; negative regulation of neuron differentiation; positive regulation of embryonic development; regulation of blood coagulation; positive regulation of transcription from RNA polymerase III promoter; positive regulation of transcription from RNA polymerase II promoter; positive regulation of neuron differentiation; cell development
Research Articles on FOXA2	**1.** Study confirmed that FOXA2 inhibited EMT in breast cancer cells by regulating the transcription of EMT-related genes such as E-cadherin and ZEB2.
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