



Anti-FOXA1 monoclonal antibody, clone 4B9 (DCABH-543)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Mouse monoclonal to FOXA1
Antigen Description	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.
Immunogen	Recombinant protein expressed in E.coli, corresponding to amino acids 1-472 of Human FOXA1.
Isotype	IgG2b
Source/Host	Mouse
Species Reactivity	Dog, Human

Clone	4B9
Purification	Purified from Mouse ascite fluid by affinity chromatography.
Conjugate	Unconjugated
Applications	WB, ICC/IF
Positive Control	WB: HEK293T transfected lysate; extract from MDCK lysate cell line ICC/IF: COS7 transfected cells
Format	Liquid
Size	100 µl
Buffer	pH: 7.30; Preservative: 0.02% Sodium azide; Constituents: 1% BSA, 50% Glycerol, 48% PBS
Preservative	0.02% Sodium Azide
Storage	Store at -20°C. Stable for 12 months at -20°C

GENE INFORMATION

Gene Name	FOXA1 forkhead box A1 [Homo sapiens]
Official Symbol	FOXA1
Synonyms	FOXA1; forkhead box A1; hepatocyte nuclear factor 3, alpha , HNF3A; hepatocyte nuclear factor 3-alpha; HNF-3A; TCF-3A; HNF-3-alpha; forkhead box protein A1; transcription factor 3A; hepatocyte nuclear factor 3, alpha; HNF3A; TCF3A; MGC33105;
Entrez Gene ID	3169
Protein Refseq	NP_004487
UniProt ID	P55317
Chromosome Location	14q12-q13
Pathway	Direct p53 effectors, organism-specific biosystem; FOXA transcription factor networks, organism-specific biosystem; FOXA1 transcription factor network, organism-specific biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem;
Function	DNA binding; DNA binding, bending; RNA polymerase II core promoter proximal region

sequence-specific DNA binding transcription factor activity involved in positive regulation of transcription; double-stranded DNA binding; protein domain specific binding;
