

KD-Validated Anti-Forkhead box A1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2329

Product Information

Application	WB, FC, ICC
Primary Accession	P55317
Reactivity	Rat, Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB1170
Calculated MW	49148
Gene Name	FOXA1
Aliases	FOXA1; Forkhead Box A1; HNF3A; Hepatocyte Nuclear Factor 3-Alpha; Forkhead Box Protein A1; Transcription Factor 3A; HNF-3-Alpha; HNF-3A; TCF-3A; TCF3A; Hepatocyte Nuclear Factor 3, Alpha
Immunogen	A synthesized peptide derived from human FOXA1

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

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

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