

IHCeasy[®] FOXA1 Ready-To-Use IHC Kit

Catalog Number: **KHC0139**

General Information

Sample type: FFPE tissue	Assay type: Immunohistochemistry
Cited sample type:	Primary antibody type: Rabbit Polyclonal
Reactivity: Human	Secondary antibody type: Polymer-HRP-Goat anti-Rabbit
Cited Reactivity:	

Kit Component

Component	Size	Concentration
Antigen Retrieval Buffer	100 mL	50×
Washing Buffer	100 mL ×2	20×
Blocking Buffer	5 mL	RTU
Primary Antibody	5 mL	RTU
Secondary Antibody	5 mL	RTU
Chromogen Component A	0.2 mL	RTU
Chromogen Component B	4 mL	RTU
Signal Enhancer	5 mL	RTU
Counter Staining Reagent	5 mL	RTU
Mounting Media	5 mL	RTU
Control Slide	1 slide (Optional)	FFPE
Datasheet	1 Copy	
Manual	1 Copy	

Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

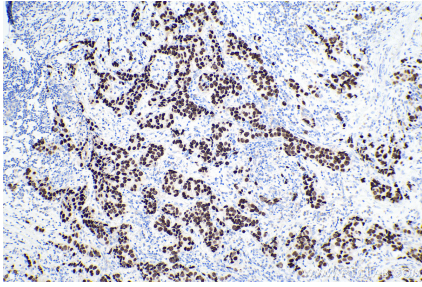
Background

Forkhead box A1 (FOXA1), also named hepatocyte nuclear factor 3-alpha (HNF-3A), is a transcription factor that is involved in embryonic development, establishment of tissue-specific gene expression and regulation of gene expression in differentiated tissues. It 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 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.

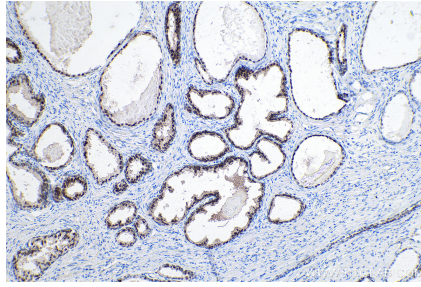
Synonyms

forkhead box A1, Forkhead box protein A1, FOXA1, HNF 3 alpha, HNF 3A, HNF3A, TCF 3A, TCF3A, Transcription factor 3A

Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using KHC0139 (FOXA1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using KHC0139 (FOXA1 IHC Kit).