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FOXA2 Antibody

Catalog # ASC11625

Product Information

Application	WB, IF, E
Primary Accession	Q9Y261
Other Accession	NP_068556, 194394143
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	48306
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	FOXA2 Antibody can be used for detection of FOXA2 by Western blot at 1 g/mL.

Additional Information

Gene ID	3170
Other Names	Hepatocyte nuclear factor 3-beta, HNF-3-beta, HNF-3B, Forkhead box protein A2, Transcription factor 3B, TCF-3B, FOXA2, HNF3B, TCF3B
Target/Specificity	FOXA2; At least two isoforms of FOXA2 are known to exist; this antibody will detect both isoforms. FOXA2 antibody is predicted to not cross-react with other members of the FOXA protein family.
Reconstitution & Storage	FOXA2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	FOXA2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FOXA2
Synonyms	HNF3B, TCF3B
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). 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 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; 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.
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00089, ECO:0000269|PubMed:14500912}. Cytoplasm Note=Shuttles between the nucleus and cytoplasm in a CRM1-dependent manner; in response to insulin signaling via AKT1 is exported from the nucleus

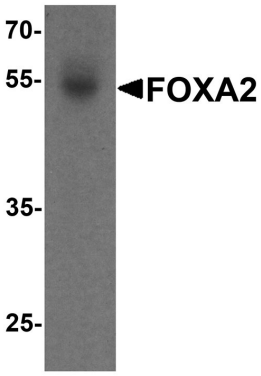
Background

FOXA2 Antibody: FOXA2 is one of three members of the FOXA family, a subset of the forkhead family of transcription factors which play vital roles in development. FOXA2 was initially identified through library screening as a closely related homolog of FOXA1. Both FOXA2 and FOXA1 act as transcriptional activators in adult liver and also play a role in body axis formation, neural tube patterning and definitive endoderm formation during gastrulation.

References

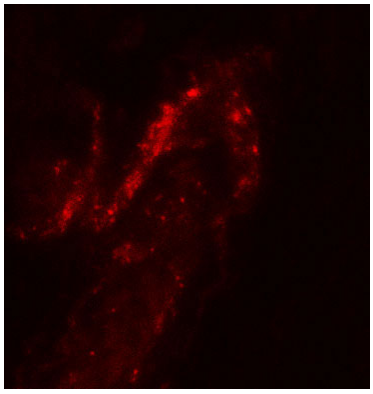
Hannenhalli S and Kaestner KH. The evolution of Fox genes and their role in development and disease. Nat. Rev. Genet. 2009; 10:233-40.
Lai E, Prezioso VR, Tao WF, et al. Hepatocyte nuclear factor 3 alpha belongs to a gene family in mammals that is homologous to the Drosophila homeotic gene fork head. Genes Dev. 1991; 5:416-27.
Sasaki H and Hogn BL. Differential expression of multiple fork head related genes during gastrulation and axial pattern formation in the mouse embryo. Dev. 1993; 118:47-59.

Images



Western blot analysis of FOXA2 in human bladder tissue lysate with FOXA2 antibody at 1 µg/mL.

Immunofluorescence of FOXA2 in human bladder tissue with FOXA2 antibody at 20 µg/ml.



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