

**FOXA2 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP11120C****Specification**

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**FOXA2 Antibody (Center) - Product Information**

Application	IF, WB, IHC-P,E
Primary Accession	<a href="#">O9Y261</a>
Other Accession	<a href="#">P32182</a> , <a href="#">P35583</a> , <a href="#">NP_710141.1</a> , <a href="#">NP_068556.2</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	48306
Antigen Region	128-157

**FOXA2 Antibody (Center) - 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**

This FOXA2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 128-157 amino acids from the Central region of human FOXA2.

**Dilution**IF~~1:10~50  
WB~~1:1000  
IHC-P~~1:10~50**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.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

FOXA2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**FOXA2 Antibody (Center) - 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**

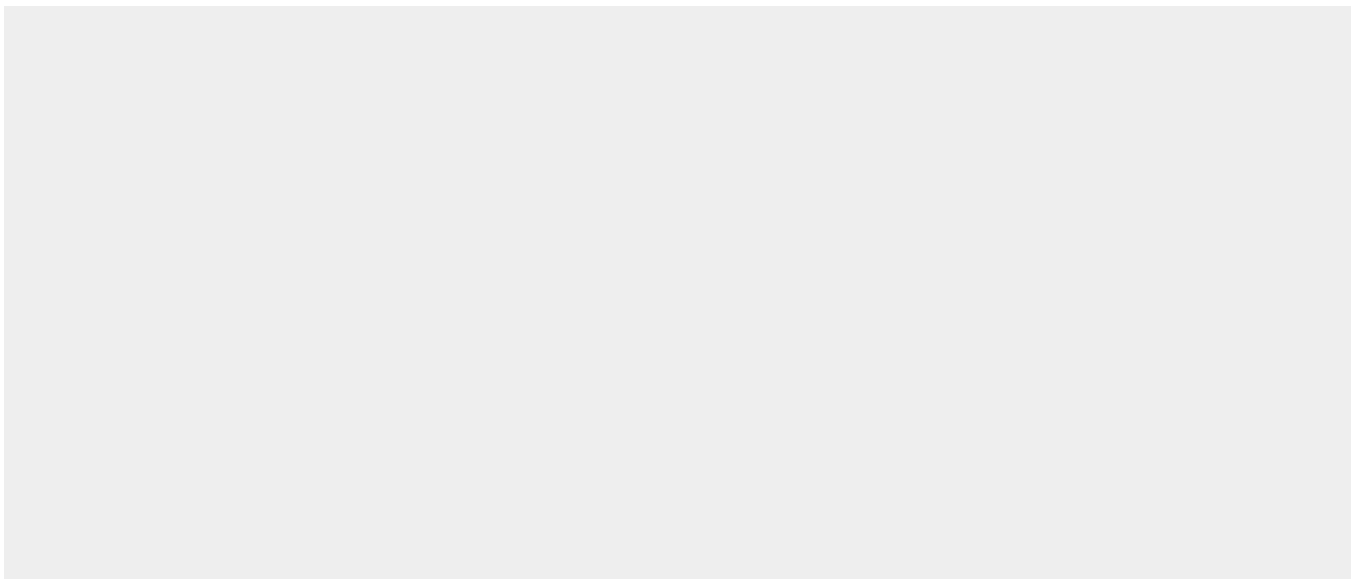
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00089, ECO:0000269|PubMed:14500912}.  
Cytoplasm Note=Shuttles between the nucleus and cytoplasm in a CRM1-dependent manner; in response to insulin signaling via AKT1 is exported from the nucleus

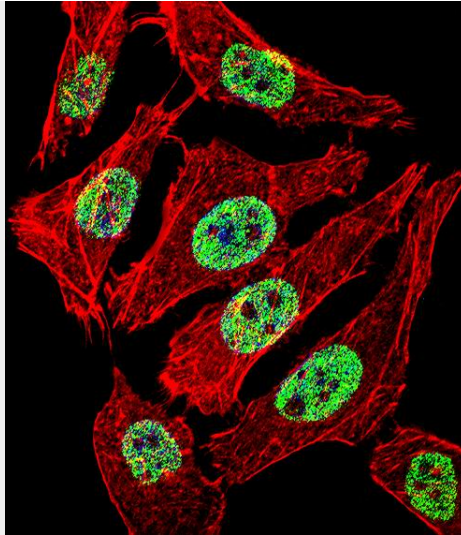
**FOXA2 Antibody (Center) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

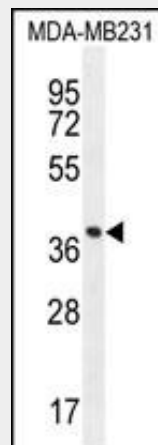
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**FOXA2 Antibody (Center) - Images**

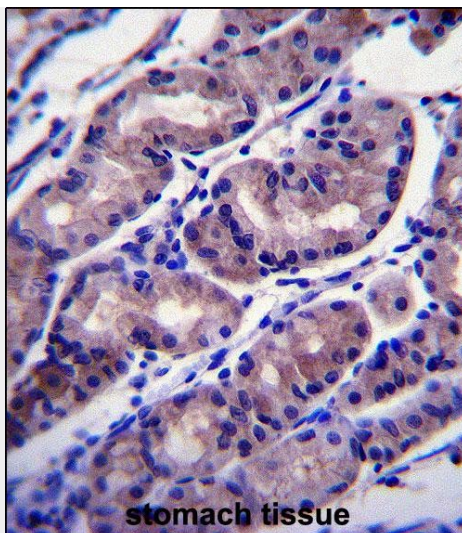




Fluorescent confocal image of A549 cell stained with FOXA2 Antibody (Center)(Cat#AP11120c).A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with FOXA2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). FOXA2 immunoreactivity is localized to Nucleus significantly.



FOXA2 Antibody (Center) (Cat. #AP11120c) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the FOXA2 antibody detected the FOXA2 protein (arrow).



FOXA2 Antibody (Center) (Cat. #AP11120c) immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of FOXA2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **FOXA2 Antibody (Center) - Background**

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.

#### **FOXA2 Antibody (Center) - References**

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)