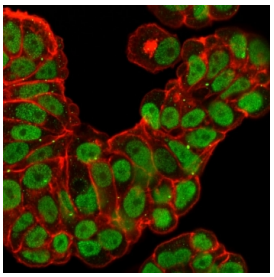
FOXA1 Antibody / Developmental Transcription Factor Antibody [clone FOXA1/2230R] (V3620)

Catalog No.	Formulation	Size
V3620-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3620-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3620SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3620IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

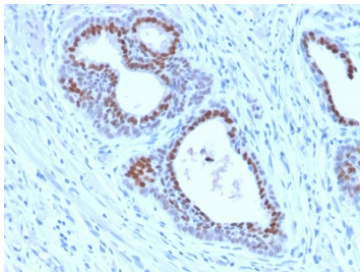
Recombinant RABBIT MONOCLONAL

Bulk quote request

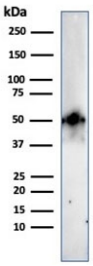
Species Reactivity	Human, Rat
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	FOXA1/2230R
Purity	Protein A affinity chromatography
UniProt	P55317
Localization	Nuclear
Applications	Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT Western blot: 1-2ug/ml Immunofluorescence: 2-4ug/ml Flow cytometry: 1-2ug/million cells
Limitations	This FOXA1 Antibody / Developmental Transcription Factor Antibody is available for research use only.



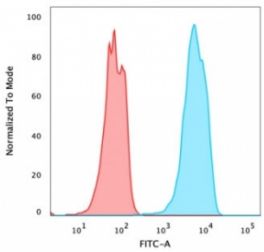
FOXA1 Antibody MCF7 Cell IF. Immunofluorescent staining of PFA-fixed human MCF7 cells using FOXA1 Antibody / Developmental Transcription Factor Antibody (clone FOXA1/2230R) demonstrates strong green nuclear staining consistent with localization of FOXA1, a DNA-binding transcription factor that regulates developmental gene expression, epithelial differentiation, and tissue-specific transcriptional programs. The predominantly nuclear staining pattern is characteristic of a transcriptional regulator and supports the role of FOXA1 in controlling gene networks that govern cellular identity and differentiation. Phalloidin (red) labels the actin cytoskeleton and outlines cellular morphology, providing structural context for the nuclear localization of FOXA1.



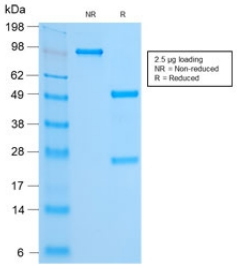
FOXA1 Antibody Human Tonsil IHC. Immunohistochemical staining of FFPE human tonsil tissue using FOXA1 Antibody / Developmental Transcription Factor Antibody (clone FOXA1/2230R) demonstrates strong nuclear HRP-DAB brown staining within epithelial cell populations lining glandular and crypt-associated structures. The staining pattern is consistent with expression of FOXA1, a forkhead family transcription factor that regulates developmental gene expression, epithelial differentiation, and tissue-specific transcriptional programs. The predominantly nuclear localization is characteristic of a DNA-binding transcriptional regulator and supports the role of FOXA1 in maintaining epithelial cellular identity and differentiated tissue phenotypes. HIER: boil sections in 10 mM Tris with 1 mM EDTA, pH 9 for 10-20 minutes followed by cooling at room temperature for 20 minutes.



FOXA1 Antibody HeLa Cell Western Blot. Western blot analysis of human HeLa cell lysate using FOXA1 Antibody / Developmental Transcription Factor Antibody (clone FOXA1/2230R) demonstrates a distinct band at approximately 49 kDa, consistent with the predicted molecular weight of FOXA1. FOXA1 is a forkhead family transcription factor and pioneer regulator that facilitates chromatin accessibility and controls gene expression programs involved in embryonic development, organogenesis, epithelial differentiation, and tissue-specific cellular identity. Detection of the expected molecular weight band supports expression of FOXA1 and its role as a developmental transcription factor that coordinates lineage-specific transcriptional networks and differentiated cellular phenotypes.



FOXA1 Antibody MCF-7 Cell FACS. Flow cytometry analysis of PFA-fixed human MCF-7 cells using FOXA1 Antibody / Developmental Transcription Factor Antibody (clone FOXA1/2230R) demonstrates a pronounced rightward shift of the FOXA1-positive population (blue) relative to the isotype control (red), consistent with expression of FOXA1. FOXA1 is a forkhead family transcription factor and pioneer regulator that controls developmental gene expression, epithelial differentiation, chromatin accessibility, and tissue-specific transcriptional programs. As a developmental transcription factor, FOXA1 plays a central role in establishing cellular identity and regulating lineage-specific gene expression networks. Red=isotype control; Blue=FOXA1 antibody.



SDS-PAGE analysis of purified, BSA-free recombinant FOXA1 antibody (clone FOXA1/2230R) as confirmation of integrity and purity.

Description

FOXA1 antibody is useful for studying Forkhead Box A1 (FOXA1), a DNA-binding transcription factor that functions as a master regulator of developmental gene expression, cellular differentiation, and tissue-specific transcriptional programs. FOXA1 belongs to the forkhead box family of transcription factors and is widely recognized as a pioneer factor capable of binding condensed chromatin and facilitating access of additional transcriptional regulators to target genomic regions. Through this activity, FOXA1 plays a central role in establishing cellular identity and coordinating developmental gene expression networks.

FOXA1 is expressed in numerous epithelial and endoderm-derived tissues, including the liver, pancreas, gastrointestinal tract, lung, prostate, mammary gland, and other organs. During embryonic development, FOXA1 contributes to tissue specification, organogenesis, cellular differentiation, and developmental patterning. The protein regulates transcriptional programs that govern organ formation and maturation, making it an important marker of developmental biology and lineage-specific gene regulation.

As a developmental transcription factor, FOXA1 controls the expression of genes involved in epithelial differentiation, metabolic regulation, cellular maturation, and tissue homeostasis. Its pioneer factor activity enables chromatin remodeling events that establish transcriptionally permissive environments for additional regulatory proteins. Through these mechanisms, FOXA1 serves as an important molecular link between chromatin organization and tissue-specific gene expression.

FOXA1 has attracted significant research interest because of its broad influence on developmental pathways and differentiated cellular states. Alterations in FOXA1 expression or activity can affect tissue development, cellular identity, transcriptional regulation, and responses to extracellular signaling pathways. Consequently, FOXA1 is frequently investigated in studies of developmental biology, stem cell differentiation, regenerative medicine, epithelial biology, and cancer-associated transcriptional programs.

In addition to its developmental functions, FOXA1 contributes to the maintenance of differentiated tissue phenotypes in adult organs. The protein participates in gene regulatory networks that influence epithelial function, metabolic activity, and tissue-specific cellular programs. Because FOXA1 regulates large transcriptional networks associated with cellular differentiation and tissue maturation, it remains an important target for investigations of organ development, tissue homeostasis, and disease-associated changes in gene expression.

FOXA1 antibodies are commonly used in immunohistochemistry, western blotting, immunofluorescence, flow cytometry, and related protein detection applications. These reagents support investigations of developmental biology, organogenesis, transcriptional regulation, epithelial differentiation, stem cell biology, and cancer research. FOXA1 antibody tools help researchers characterize developmental gene expression programs and the molecular pathways that govern tissue formation, maturation, and cellular identity.

Researchers studying developmental transcription factors, gene regulation, cellular differentiation, and signaling-dependent gene expression may also be interested in our broader Signal Transduction Antibody collection.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the FOXA1 Antibody / Developmental Transcription Factor Antibody to be titered up or down for optimal performance.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A human recombinant partial protein corresponding to amin acids 372-472 was used as the immunogen for this recombinant FOXA1 antibody.

Storage

Store the FOXA1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Forkhead Box A1 Antibody, HNF3A Antibody, Hepatocyte Nuclear Factor 3 Alpha Antibody, Pioneer Transcription Factor Antibody, Organ Development Protein Antibody, Epithelial Differentiation Protein Antibody

References (1)

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