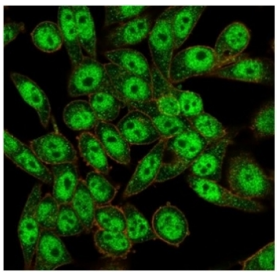
FOXI1 Antibody / Forkhead Box Transcription Factor Marker [clone PCRP-FOXI1-1F8] (V9554)

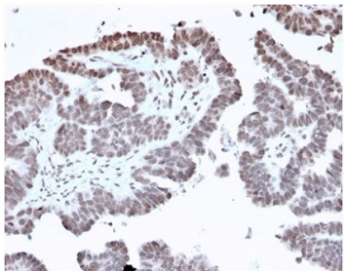
Catalog No.	Formulation	Size
V9554-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9554-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9554SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

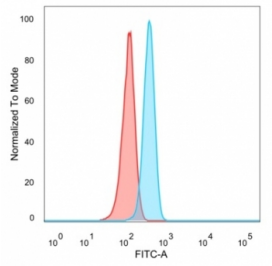
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	PCRP-FOXI1-1F8
Purity	Protein A/G affinity
UniProt	Q12951
Localization	Nucleus
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This FOXI1 Antibody / Forkhead Box Transcription Factor Marker is available for research use only.



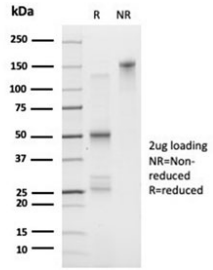
FOXI1 Antibody HeLa IF. Immunofluorescence analysis of PFA-fixed human HeLa cells stained with FOXI1 Antibody / Forkhead Box Transcription Factor Marker (green, clone PCRP-FOXI1-1F8) and phalloidin cytoskeletal stain (red). Forkhead box protein I1 / FOXI1 demonstrates prominent nuclear staining with additional cytoplasmic signal in human HeLa cells, consistent with the intracellular distribution expected for a forkhead family transcription-associated regulatory protein involved in epithelial differentiation and developmental gene expression pathways.



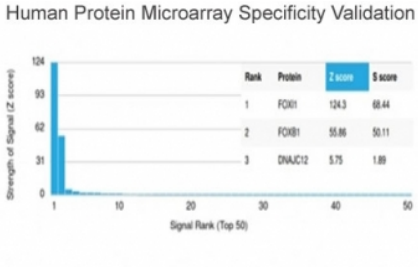
FOXI1 Antibody Prostate IHC. Immunohistochemistry analysis of FFPE human prostate tissue stained with FOXI1 Antibody / Forkhead Box Transcription Factor Marker (clone PCRP-FOXI1-1F8). Nuclear HRP-DAB brown staining is observed in prostate epithelial cells, consistent with the transcription-associated localization expected for Forkhead box protein I1 / FOXI1. Sections underwent HIER using 10mM Tris with 1mM EDTA buffer, pH 9, followed by incubation with FOXI1 antibody at 2ug/ml prior to chromogenic detection.



FOXI1 Antibody HeLa FACS. Flow cytometry analysis of PFA-fixed human HeLa cells stained with FOXI1 Antibody / Forkhead Box Transcription Factor Marker (blue, clone PCRP-FOXI1-1F8). Unstained cells are shown in red. The distinct fluorescence shift supports detection of endogenous Forkhead box protein I1 / FOXI1 expression in HeLa cells, consistent with the broad intracellular distribution expected for a forkhead family transcription-associated regulatory protein involved in epithelial differentiation and developmental signaling pathways.



SDS-PAGE analysis of purified, BSA-free FOXI1 antibody (clone PCRP-FOXI1-1F8) as confirmation of integrity and purity.



FOXI1 Antibody HuProt Microarray Specificity Validation. Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using FOXI1 Antibody / Forkhead Box Transcription Factor Marker clone PCRP-FOXI1-1F8 demonstrates exceptional specificity for Forkhead box protein I1 / FOXI1. FOXI1 ranks first among all proteins analyzed on the array, with extremely strong separation from secondary signals, supporting the highly selective recognition profile of this mouse monoclonal antibody for forkhead transcription factor and developmental signaling research applications. Z-score represents signal intensity above background in standard deviation units, while S-score reflects the relative specificity of antibody binding compared with other proteins present on the HuProt(TM) platform.

Description

Forkhead box protein I1 (FOXI1) is a member of the forkhead box family of transcription factors involved in epithelial differentiation, developmental signaling, and regulation of ion transport-associated gene expression pathways. FOXI1 Antibody / Forkhead Box Transcription Factor Marker is suitable for investigations involving forkhead transcription factor biology, epithelial regulatory pathways, developmental signaling, and tissue-associated transcriptional regulation. FOXI1 belongs to the FOX superfamily of DNA-associated transcriptional regulators characterized by the conserved forkhead DNA-binding domain that coordinates differentiation and lineage-specific gene expression programs.

FOXI1 antibody, also referred to as Forkhead box I1 antibody, Forkhead transcription factor antibody, HFH-3 antibody, and FKHL10 antibody in the literature, recognizes a transcription-associated regulatory protein linked to epithelial ion transport regulation and developmental tissue specification. FOXI1 expression is strongly associated with specialized epithelial populations involved in proton transport and ion homeostasis, particularly within renal intercalated cells and inner ear epithelial structures. Through transcriptional regulation of ion transporter-associated genes, FOXI1 contributes to maintenance of epithelial functional identity and coordinated cellular homeostasis pathways.

Members of the forkhead box transcription factor family regulate diverse biological processes including embryogenesis, organ development, differentiation, metabolism, and adaptive cellular signaling. FOXI1 has been implicated in pathways associated with epithelial maturation, acid-base transport regulation, and developmental patterning of ion-transporting tissues. Experimental studies have linked FOXI1 activity to transcriptional regulation of proton pump subunits, ion channels, and epithelial transport proteins required for specialized physiological functions.

Altered FOXI1 expression or dysregulation of FOXI1-associated transcriptional pathways has been associated with developmental abnormalities involving epithelial and sensory systems. Because FOXI1 functions as a lineage-associated transcriptional regulator within specialized epithelial populations, this target is useful for studies examining epithelial differentiation, tissue patterning, developmental signaling pathways, and ion transport-associated transcriptional networks. FOXI1 has additionally been investigated in relation to inner ear development and epithelial homeostasis mechanisms requiring tightly coordinated transcriptional regulation.

Clone PCRP-FOXI1-1F8 demonstrates strong HuProt(TM) protein microarray specificity validation against more than 19,000 full-length human proteins, supporting selective recognition of FOXI1 with minimal off-target reactivity. Immunofluorescence, immunohistochemistry, and flow cytometry analyses further support detection of endogenous FOXI1 expression across multiple application formats. The combination of multi-application validation and exceptional protein microarray specificity supports use of this mouse monoclonal antibody for studies involving forkhead transcription factors, epithelial regulatory proteins, and developmental signaling-associated transcriptional pathways.

An antibody targeting FOXI1 can therefore support investigations involving forkhead box transcription factor biology, epithelial differentiation programs, ion transport regulatory pathways, developmental tissue specification, and transcription-associated cellular homeostasis mechanisms.

FOXI1 is involved in forkhead transcription factor signaling and developmental gene regulation; additional cellular regulatory targets are available on our Cell Biology Antibodies landing page.

Application Notes

Optimal dilution of the FOXI1 Antibody / Forkhead Box Transcription Factor Marker should be determined by the researcher.

Immunogen

A portion of amino acids 104-258 was used as the immunogen for the FOXI1 antibody.

Storage

Aliquot the FOXI1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

FOXI1 antibody, Forkhead box I1 antibody, Forkhead transcription factor antibody, HFH-3 antibody, FKHL10 antibody

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