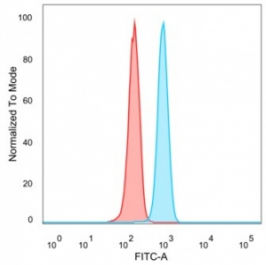
Forkhead Box I1 Antibody / Microarray Specificity Validated Antibody [clone PCRP-FOXI1-1C4] (V4449)

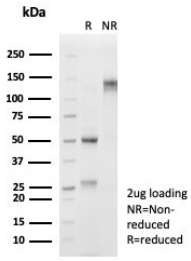
Catalog No.	Formulation	Size
V4449-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4449-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4449SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

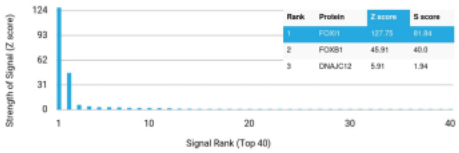
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	PCRP-FOXI1-1C4
Purity	Protein A/G affinity
UniProt	Q12951
Localization	Nucleus
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Limitations	This Forkhead Box I1 Antibody / Microarray Specificity Validated Antibody is available for research use only.



Forkhead Box I1 Antibody HeLa FACS. Flow cytometry analysis of PFA-fixed human HeLa cells stained with Forkhead Box I1 Antibody / Microarray Specificity Validated Antibody (blue, clone PCRP-FOXI1-1C4) followed by goat anti-mouse IgG-CF488. Unstained cells are shown in red. The distinct fluorescence shift supports detection of endogenous Forkhead box protein I1 / FOXI1 expression in human HeLa cells, consistent with the 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 Forkhead Box I1 antibody (clone PCRP-FOXI1-1C4) as confirmation of integrity and purity.



Forkhead Box I1 Antibody HuProt Microarray Specificity Validation. Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using Forkhead Box I1 Antibody / Microarray Specificity Validated Antibody clone PCRP-FOXI1-1C4 demonstrates highly selective recognition of Forkhead box protein I1 / FOXI1. The intended FOXI1 target ranks first among all proteins analyzed on the array, with exceptionally strong separation from secondary signals including related forkhead family proteins, supporting the specificity profile of this mouse monoclonal antibody for 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 additional proteins present on the HuProt(TM) platform.

Description

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

Forkhead Box I1 antibody, also referred to as FOXI1 antibody, HuProt validated FOXI1 antibody, Protein microarray validated FOXI1 antibody, and FKHL10 antibody in the literature, recognizes a nuclear regulatory protein associated with epithelial ion transport regulation and developmental tissue specification. FOXI1 expression is enriched within specialized epithelial populations including renal intercalated cells and inner ear epithelial tissues, where it contributes to regulation of proton transport-associated genes and epithelial homeostasis pathways. Through transcriptional regulation of ion transporter and epithelial differentiation programs, FOXI1 supports maintenance of specialized cellular identity and developmental signaling networks.

Specificity is particularly important when studying forkhead family transcription factors because related FOX proteins often share structurally conserved DNA-binding domains and overlapping nuclear localization patterns. HuProt(TM) protein microarray analysis with clone PCRP-FOXI1-1C4 demonstrates highly selective recognition of FOXI1 among more than 19,000 full-length human proteins, supporting confidence in selective target detection for transcription factor and developmental signaling research applications. The exceptionally strong separation between FOXI1 and secondary signals further supports the specificity profile of this mouse monoclonal antibody for nuclear regulatory protein investigations.

FOXI1 has additionally been implicated in developmental pathways controlling epithelial maturation, acid-base regulation, and sensory epithelial biology. Altered FOXI1-associated transcriptional programs have been linked to abnormalities involving epithelial differentiation and ion transport-associated tissue function. Because FOXI1 functions within broader developmental transcriptional networks, this target remains relevant for studies examining epithelial signaling pathways, lineage-associated transcriptional regulation, and developmental gene expression control mechanisms.

Flow cytometry analysis supports detection of endogenous FOXI1 expression in human cells, consistent with the intracellular distribution expected for a forkhead family transcription-associated regulatory protein. The combined FACS and HuProt(TM) specificity validation profile supports use of clone PCRP-FOXI1-1C4 for investigations involving forkhead transcription factors, developmental signaling pathways, epithelial differentiation biology, and nuclear regulatory protein research.

An antibody targeting FOXI1 can therefore support studies involving forkhead transcription factor specificity, epithelial differentiation pathways, developmental gene expression regulation, ion transport-associated signaling mechanisms, and nuclear transcription-associated regulatory biology.

Explore our FOXI1 Antibody / Forkhead Box Transcription Factor Marker page for additional validation data including HuProt microarray specificity analysis, immunohistochemistry, immunofluorescence, and flow cytometry characterization of FOXI1 expression.

Application Notes

Optimal dilution of the Forkhead Box I1 Antibody / Microarray Specificity Validated Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 104-258) from the human protein was used as the immunogen for the Forkhead Box I1 antibody.

Storage

Aliquot the Forkhead Box I1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Forkhead Box I1 antibody, FOXI1 antibody, HuProt validated FOXI1 antibody, Protein microarray validated FOXI1 antibody, FKHL10 antibody

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