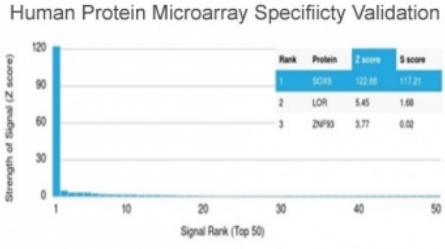
SOX9 Antibody / Microarray Specificity Validated Antibody [clone PCRP-SOX9-1A2] (V8969)

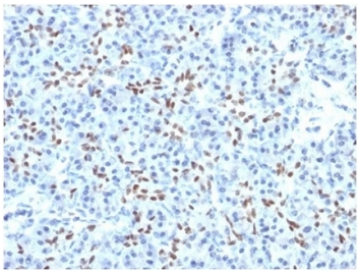
Catalog No.	Formulation	Size
V8969-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8969-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8969SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

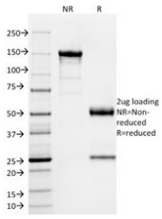
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	PCRP-SOX9-1A2
Purity	Protein A/G affinity
UniProt	P48436
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This SOX9 Antibody / Microarray Specificity Validated Antibody is available for research use only.



SOX9 Antibody Microarray Specificity Validation. Analysis of HuProt(TM) human protein microarray containing over 19,000 full-length human proteins using SOX9 Antibody / Microarray Specificity Validated Antibody (clone PCRP-SOX9-1A2). The antibody demonstrates a dominant and highly specific binding signal to SOX9 with minimal off-target reactivity, confirming strong target selectivity. Z-score reflects signal intensity relative to the array-wide mean in standard deviations, while S-score represents the separation between the top-ranked target and the next highest signal, indicating relative specificity. The pronounced Z- and S-score values for SOX9 support high-confidence antibody specificity for downstream applications such as immunohistochemistry and tissue microarray-based analysis.



SOX9 Antibody Human Pancreatic Tissue IHC. Immunohistochemistry analysis of SOX9 Antibody / Microarray Specificity Validated Antibody in FFPE human pancreas tissue. The recombinant monoclonal antibody clone PCRP-SOX9-1A2 demonstrates distinct nuclear HRP-DAB brown staining in pancreatic ductal epithelial cells, consistent with the expected nuclear localization of SOX9 as a transcription factor. Acinar cells show minimal to absent staining, while surrounding stromal components remain largely negative, supporting specificity of signal. The clear nuclear staining pattern highlights SOX9 expression in ductal and progenitor-associated epithelial compartments. Microarray-validated specificity supports reliable interpretation of staining in immunohistochemistry and tissue microarray applications. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA, pH 9, by boiling for 20 minutes followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free SOX9 antibody (clone PCRP-SOX9-1A2) as confirmation of integrity and purity.

Description

SRY-box transcription factor 9 (SOX9) is a nuclear transcription factor that plays a central role in developmental biology, epithelial differentiation, and lineage specification, with well-established relevance in cancer progression and stem-like cell regulation. SOX9 Antibody is widely used to assess nuclear transcriptional activity in tissue sections, and SOX9 Antibody / Microarray Specificity Validated Antibody provides enhanced confidence in immunohistochemistry through independently verified proteome-wide specificity.

In immunohistochemistry of formalin-fixed, paraffin-embedded (FFPE) tissues, precise detection of nuclear proteins requires antibodies with minimal cross-reactivity. SOX9 antibody, also referred to as SRY-box transcription factor 9 antibody, is commonly applied to evaluate epithelial progenitor compartments, ductal structures, and tumor cell populations exhibiting lineage plasticity. Because transcription factors often share conserved domains, non-specific binding can obscure interpretation, particularly in complex tissue microarrays containing diverse cell types.

This antibody has been validated using human protein microarray technology, demonstrating highly selective binding to SOX9 with a dominant signal intensity relative to all other tested proteins. The absence of significant off-target interactions across the proteome supports highly specific antigen recognition. This level of specificity is particularly valuable in tissue microarray (TMA) studies, where hundreds of normal and cancer tissue cores are analyzed in parallel and consistent staining fidelity is essential for accurate comparative interpretation.

In FFPE human tissue microarrays, SOX9 expression is observed as distinct nuclear staining in epithelial progenitor cells, ductal epithelial structures, and selected lineage-restricted cell populations. Normal tissues show compartmentalized nuclear positivity corresponding to known developmental and differentiation-associated expression patterns, while most stromal and fully differentiated tissues exhibit low to absent signal. Across cancer TMAs, SOX9 nuclear staining is frequently detected in tumors with progenitor-like or stem-associated phenotypes, supporting its role in tumor initiation, progression, and cellular plasticity.

The integration of microarray specificity validation with tissue microarray-based immunohistochemistry enables reliable discrimination between true biological signal and potential background staining. Clean nuclear localization, low non-specific signal, and reproducible staining across large TMA panels support the use of this antibody for high-throughput tissue profiling and biomarker evaluation studies.

SOX9 functions downstream of key signaling pathways including Wnt/beta-catenin, Notch, Hedgehog, and TGF-beta, where it regulates transcriptional programs governing differentiation and cell fate decisions. Its expression is widely studied in cancers such as pancreatic, colorectal, lung, and ovarian carcinoma, where it is associated with tumor cell plasticity and progenitor-like states. Accurate immunohistochemical detection of SOX9 is therefore critical for investigating these biological processes in both normal and diseased tissues.

Overall, SOX9 Antibody is well suited for immunohistochemistry applications requiring high specificity, consistent nuclear staining, and reliable performance across FFPE tissue microarrays. Its proteome-wide validated selectivity and robust staining characteristics support confident interpretation of SOX9 expression in large-scale tissue analysis studies.

This SOX9 antibody is part of a broader SOX9 antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the SOX9 Antibody / Microarray Specificity Validated Antibody should be determined by the researcher.

Immunogen

Recombinant human full-length SOX9 protein was used as the immunogen for the SOX9 antibody.

Storage

Aliquot the SOX9 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

SOX9 antibody, SRY-box transcription factor 9 antibody, SOX9 microarray validated antibody, SOX9 specificity validated antibody, SOX9 immunohistochemistry antibody