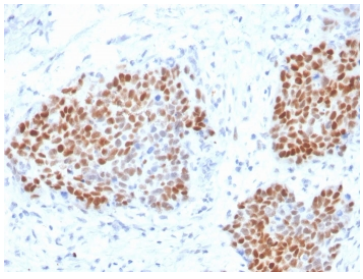
SOX9 Antibody / EMT Marker Antibody [clone SOX9/3916R] (V8514)

Catalog No.	Formulation	Size
V8514-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8514-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8514SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

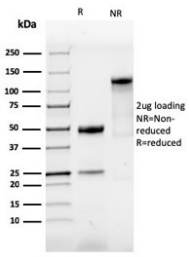
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	SOX9/3916R
Purity	Protein A affinity chromatography
UniProt	P48436
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This SOX9 Antibody / EMT Marker Antibody is available for research use only.



SOX9 Antibody Pancreas EMT IHC. Immunohistochemistry analysis of FFPE human pancreas using SOX9 Antibody. The recombinant rabbit monoclonal antibody clone SOX9/3916R demonstrates strong nuclear HRP-DAB brown staining in epithelial cell clusters, consistent with SOX9 expression in cells exhibiting epithelial plasticity and EMT-associated transcriptional activity. Surrounding stromal components show minimal staining, providing clear contrast of SOX9-positive populations. The observed pattern supports SOX9 as an EMT marker in pancreatic tissue. Heat-induced epitope retrieval was performed using pH 9 Tris-EDTA buffer to optimize nuclear antigen detection.



SDS-PAGE analysis of purified, BSA-free recombinant SOX9 Antibody / EMT Marker Antibody as confirmation of integrity and purity.

Description

SRY-box transcription factor 9 (SOX9) is a nuclear transcription factor that regulates developmental programs, epithelial identity, and cellular plasticity, with a well-established role in tumor progression and phenotypic reprogramming. SOX9 Antibody is widely used to study transcriptional control of epithelial differentiation and is increasingly recognized as a robust marker of epithelial-mesenchymal transition (EMT), a key process driving tumor invasion and metastasis. SOX9 Antibody / EMT Marker Antibody enables detection of nuclear SOX9 expression associated with dynamic shifts in tumor cell state.

In immunohistochemistry applications, SOX9 demonstrates strong nuclear staining in tumor cell populations undergoing epithelial-mesenchymal transition, where epithelial architecture is disrupted and cells acquire migratory and invasive characteristics. SOX9 antibody, also known as SRY-box transcription factor 9 antibody, is frequently upregulated at invasive tumor fronts and in poorly differentiated regions, making it particularly useful for identifying EMT-associated subpopulations in formalin-fixed, paraffin-embedded (FFPE) tissues. In tissue microarray (TMA) analysis, this consistent nuclear labeling across tumor cores supports comparative evaluation of EMT-related expression patterns across multiple cancer types and disease stages.

SOX9 functions downstream of key signaling pathways including Wnt/beta-catenin, TGF-beta, Notch, and Hedgehog, integrating extracellular signals that promote epithelial plasticity, stem-like behavior, and resistance to differentiation. During EMT, SOX9 contributes to transcriptional programs that suppress epithelial markers while enhancing mesenchymal traits, supporting increased motility, invasiveness, and metastatic potential. SOX9 Antibody enables visualization of these transcriptionally active cell populations, providing insight into tumor heterogeneity and progression.

Elevated SOX9 expression has been documented across a wide range of malignancies, including pancreatic, colorectal, lung, ovarian, and gastric cancers, where it correlates with aggressive tumor behavior, poor differentiation, and reduced clinical outcome. Nuclear SOX9 staining is often enriched in regions of active tumor remodeling and cellular transition, reinforcing its value as a marker of EMT-driven disease progression. SOX9 Antibody supports detection of these patterns in both single-section analysis and high-throughput TMA formats, enabling consistent cross-sample comparison.

In addition to its role in cancer, SOX9 is essential for normal developmental processes such as chondrogenesis and organ formation, reflecting its function as a master regulator of lineage commitment. Its reactivation in tumor contexts highlights the convergence of developmental signaling pathways and oncogenic transformation. SOX9 Antibody provides a reliable tool for studying these overlapping mechanisms in both normal and pathological tissues.

Overall, SOX9 Antibody is well suited for immunohistochemical detection of EMT-associated transcriptional activity and tumor cell plasticity. Its strong nuclear staining pattern and relevance to epithelial-mesenchymal transition make it particularly valuable for TMA-based studies of tumor invasion, progression, and metastatic potential.

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

Application Notes

Optimal dilution of the SOX9 Antibody / EMT Marker Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 393-508 from the human protein was used as the immunogen for the recombinant SOX9 antibody.

Storage

Store the recombinant SOX9 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

SOX9 antibody, SRY-box transcription factor 9 antibody, SOX9 EMT marker antibody, SOX9 epithelial mesenchymal transition antibody, SOX9 immunohistochemistry antibody