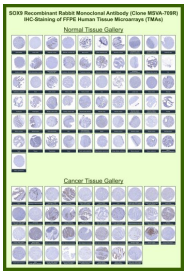
SOX9 IHC Antibody / SOX9 Immunohistochemistry Antibody [clone MSVA-709R] (V5998)

Catalog No.	Formulation	Size
V5998-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5998-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-709R
UniProt	P48436
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This SOX9 IHC Antibody / SOX9 Immunohistochemistry Antibody is available for research use only.



SOX9 IHC Antibody Tissue Microarray (TMA). Immunohistochemistry analysis of SRY-box transcription factor 9 SOX9 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal SOX9 antibody clone MSVA-709R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates distinct nuclear localization in epithelial progenitor compartments and glandular tissues, consistent with the role of SOX9 as a transcriptional regulator of differentiation and stem-like cell states. In normal tissue microarrays, nuclear staining is observed in gastrointestinal epithelium, pancreatic ducts, and reproductive tissues, while many fully differentiated tissues show reduced signal. Within tumor tissue microarrays, variable nuclear positivity is detected across multiple carcinomas, with stronger staining often associated with regions of glandular differentiation and cellular plasticity. Evaluation across large TMA panels enables direct comparison of SOX9 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported SOX9 expression profiles in the Human Protein Atlas.

Description

SRY-box transcription factor 9 (SOX9) is a nuclear transcription factor that plays a central role in embryonic development, stem cell maintenance, and lineage specification, particularly in chondrogenesis, sex determination, and epithelial differentiation. SOX9 IHC Antibody is widely used in immunohistochemistry to detect nuclear SOX9 expression in formalin-fixed, paraffin-embedded tissues, enabling detailed evaluation of progenitor cell populations, differentiation status, and lineage commitment in both normal and tumor tissues.

SOX9 antibody, also referred to as SRY-box transcription factor 9 antibody, functions as a highly specific nuclear marker in immunohistochemistry, producing strong nuclear HRP-DAB brown staining in SOX9-expressing cells. SOX9 IHC Antibody is particularly valuable for identifying epithelial progenitor compartments, glandular differentiation programs, and stem-like cell populations, while most terminally differentiated cells exhibit reduced or absent nuclear signal. This distinct nuclear staining pattern enables precise localization of transcriptionally active cells within complex tissue architectures.

Clone MSVA-709R is a recombinant rabbit monoclonal antibody developed for high-affinity and reproducible detection of SOX9 in FFPE tissue sections. The antibody demonstrates robust nuclear staining with minimal background under standard antigen retrieval conditions, allowing consistent interpretation across a wide range of tissue types. In Tissue Microarray (TMA) immunohistochemistry, SOX9 IHC Antibody delivers highly consistent and comparable staining across large panels of normal and cancer tissues, supporting high-throughput analysis of SOX9 expression across hundreds of tissue cores within a single slide.

In normal tissue microarrays, nuclear SOX9 expression is prominently observed in epithelial progenitor zones and glandular tissues, including gastrointestinal epithelium, pancreatic ducts, biliary epithelium, and reproductive tract epithelia, reflecting its role in maintaining lineage-specific transcriptional programs. Additional staining is observed in chondrocytes and selected stromal populations, consistent with SOX9 function in mesenchymal differentiation. Fully differentiated tissues typically show low or absent expression, reinforcing its association with progenitor and developmentally active cell states in IHC analysis.

In cancer tissue microarrays, SOX9 IHC Antibody highlights nuclear expression in a broad range of carcinomas, including colorectal, pancreatic, prostate, ovarian, and lung tumors, where SOX9 is associated with cellular plasticity, tumor progression, and stem-like phenotypes. Increased staining is often observed in regions of active tumor growth and glandular differentiation, supporting its role as a marker of tumor heterogeneity and lineage reprogramming. The ability to evaluate SOX9 expression across diverse tumor types within TMA panels enhances its utility in comparative oncology and biomarker studies.

The strong and reproducible performance of clone MSVA-709R in immunohistochemistry and tissue microarray analysis supports its application in developmental biology, cancer research, and stem cell biology. SOX9 IHC Antibody provides a reliable tool for detecting nuclear transcription factor activity in FFPE tissues and enables high-throughput assessment of differentiation state, lineage identity, and tumor biology across large-scale tissue panels.

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

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the SOX9 IHC Antibody / SOX9 Immunohistochemistry Antibody should be determined by the researcher.

2. This SOX9 IHC antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced

antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant humanSOX9 protein fragment (around amino acids 393-508) (exact sequence is proprietary) was used as the immunogen for the SOX9 IHC antibody.

Storage

SOX9 IHC antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

SOX9 antibody, SRY-box transcription factor 9 antibody, SOX9 IHC antibody, SOX9 nuclear marker antibody, SOX9 transcription factor antibody