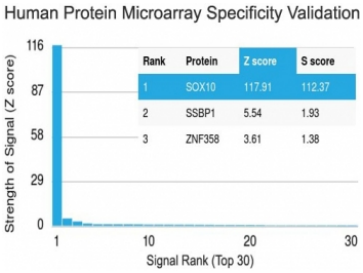
SOX-10 Antibody [clone SOX10/1074] (V3509)

Catalog No.	Formulation	Size
V3509-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3509-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3509SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3509IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

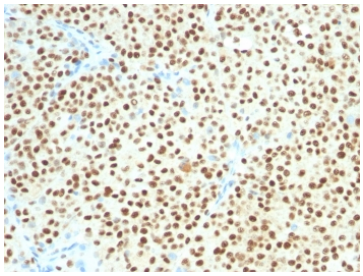
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	SOX10/1074
Purity	Protein G affinity chromatography
UniProt	P56693
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This SOX-10 antibody is available for research use only.

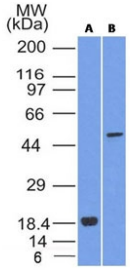


Protein array validation of the SOX-10 antibody: Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SOX-10 antibody (clone SOX10/1074).

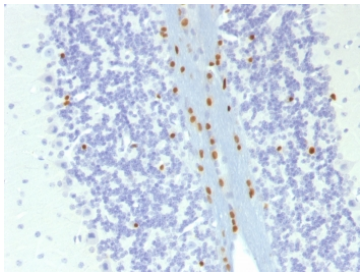
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



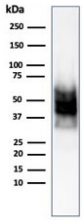
IHC testing of FFPE human melanoma with SOX-10 antibody (clone SOX10/1074). Required HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min.



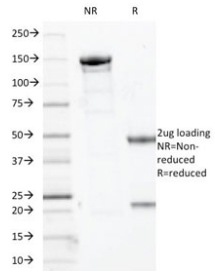
Western blot testing of A) partial recombinant protein; B) A375 cell lysate using SOX-10 antibody (SOX10/1074). Predicted molecular weight ~50 kDa.



IHC testing of FFPE mouse brain with SOX-10 antibody (clone SOX10/1074). Required HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min.



Western blot testing of human COLO-38 cell lysate using SOX-10 antibody (SOX10/1074). Predicted molecular weight ~50 kDa.



SDS-PAGE analysis of purified, BSA-free SOX-10 antibody (clone SOX10/1074) as confirmation of integrity and purity.

Description

SOX-10 antibody is widely employed to investigate SOX10, a transcription factor critical for the development and maintenance of neural crest derived cells. SOX10 directs lineage specification of melanocytes, Schwann cells, and oligodendrocytes, while also contributing to neural crest migration and survival. Its expression marks critical stages of development and has become a standard tool for both research and diagnostic applications.

As a DNA binding protein, SOX10 regulates expression of genes required for myelination, pigment production, and glial function. It binds to target DNA sequences through its HMG domain, acting in concert with cofactors to shape transcriptional outcomes. Genetic disruption of SOX10 causes syndromic conditions including Waardenburg syndrome, demonstrating its vital role in embryogenesis and tissue homeostasis.

The SOX-10 antibody clone SOX10/1074 offers reliable specificity for this transcription factor. Clone SOX10/1074 has been used to map neural crest derivatives in developmental studies, as well as to classify tumors with neural crest origins. Its nuclear staining pattern provides clarity when distinguishing melanocytic or glial tumors from other neoplasms, making it a valuable diagnostic aid.

SOX10 is particularly significant in oncology, where its expression serves as a sensitive and specific marker for melanoma. Research using clone SOX10/1074 has improved diagnostic precision and expanded understanding of how SOX10 influences tumor behavior. In neuroscience, this antibody supports studies of myelin biology, highlighting the role of SOX10 in regulating oligodendrocyte maturation and function.

NSJ Bioreagents supplies this SOX-10 antibody to researchers investigating neural crest development, pigment biology, and cancer pathology. Alternate names include transcription factor SOX10 antibody, SRY related HMG box 10 antibody, Waardenburg syndrome transcription factor antibody, and glial lineage regulator antibody. These terms demonstrate the varied ways scientists refer to this important developmental gene.

Application Notes

Optimal dilution of the SOX-10 antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids 115-269 of the human protein were used as the immunogen for the SOX-10 antibody.

Storage

Store the SOX-10 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).