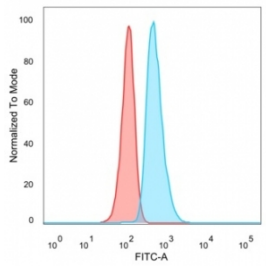
SOX10 Antibody / SRY-box transcription factor 10 [clone PCRP-SOX10-1D8] (V8947)

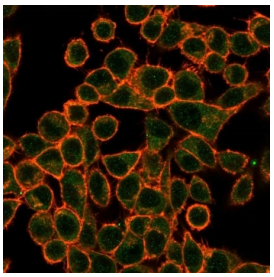
Catalog No.	Formulation	Size
V8947-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8947-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8947SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

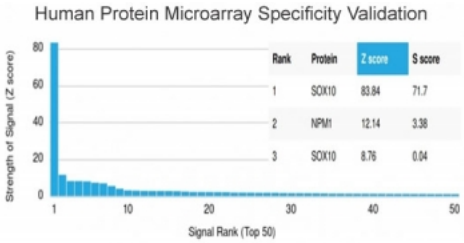
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	PCRP-SOX10-1D8
Purity	Protein A/G affinity
UniProt	P56693
Localization	Nuclear
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml
Limitations	This SOX10 antibody is available for research use only.



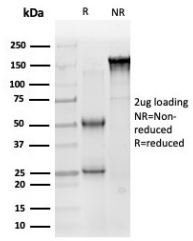
FACS staining of PFA-fixed human HeLa cells with SOX10 antibody (blue, clone PCRP-SOX10-1D8), and unstained cells (red).



Immunofluorescent staining of PFA-fixed human HeLa cells using SOX10 antibody (green, clone PCRP-SOX10-1D8) and phalloidin (red).



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SOX10 antibody (clone PCRP-SOX10-1D8). These results demonstrate the foremost specificity of the PCRP-SOX10-1D8 mAb. 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.



SDS-PAGE analysis of purified, BSA-free SOX10 antibody (clone PCRP-SOX10-1D8) as confirmation of integrity and purity.

Description

SOX10 antibody recognizes SRY-box transcription factor 10, a nuclear DNA-binding protein encoded by the SOX10 gene and a member of the SOX family of high mobility group box transcription factors. SOX10 contains a conserved HMG-box domain that enables sequence-specific DNA interaction and bending of DNA to facilitate transcriptional complex assembly. This nuclear localization is a defining feature of SOX10 expression and is consistently observed when using a SOX10 antibody in tissue-based assays. SOX10 plays a critical role in embryonic neural crest development, where it regulates lineage commitment and differentiation of melanocytes, Schwann cells, peripheral glia, and components of the enteric nervous system. During melanocyte development, SOX10 directly influences MITF transcription and downstream pigmentation pathways, supporting melanin synthesis and melanocyte survival. In peripheral nerve biology, SOX10 participates in Schwann cell maturation and myelination programs, interacting with signaling pathways including Wnt, Notch, and neuregulin-mediated mechanisms. In adult tissues, SOX10 expression is largely restricted to melanocytes within the basal epidermis and hair follicles, as well as Schwann cells in peripheral nerves, reflecting its neural crest origin. This restricted distribution makes SOX10 antibody a valuable marker for identifying neural crest-derived cell populations. In oncology research, SOX10 expression is frequently detected in melanoma, peripheral nerve sheath tumors, and clear cell sarcoma, where its nuclear staining pattern assists in confirming melanocytic or neural crest lineage. SOX10 has also been reported in subsets of triple-negative breast carcinoma and other tumors with basal-like or stem-like features. Dysregulation of SOX10 may contribute to tumor progression, cellular plasticity, and invasive behavior. Because of its strong nuclear staining and lineage specificity, SOX10 antibody is suitable for detecting SOX10 expression in immunohistochemistry and related research assays, supporting studies in developmental biology, neurobiology, dermatopathology, and cancer research.

Application Notes

Optimal dilution of the SOX10 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 90-179 was used as the immunogen for the SOX10 antibody.

Storage

Aliquot the SOX10 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com