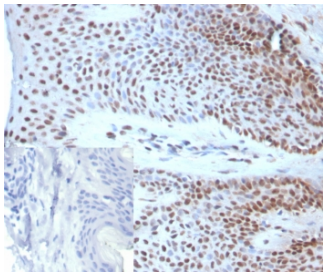
SOX18 Monoclonal Antibody SOX18/3271 / SOX18 Transcription Factor Antibody [clone SOX18/3271] (V4834)

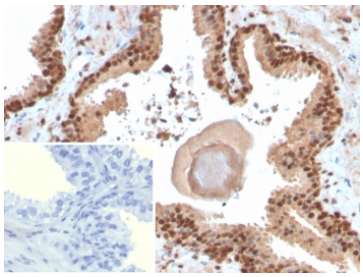
Catalog No.	Formulation	Size
V4834-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4834-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4834SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

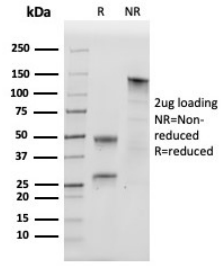
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	SOX18/3271
Purity	Protein A/G affinity
UniProt	P35713
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This SOX18 Monoclonal Antibody SOX18/3271 / SOX18 Transcription Factor Antibody is available for research use only.



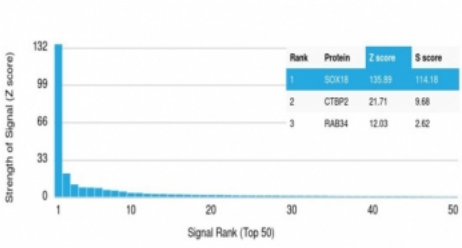
SOX18 Monoclonal Antibody SOX18/3271 IHC Analysis of Human Skin Tissue. Immunohistochemical analysis of formalin-fixed, paraffin-embedded human skin tissue using SOX18 Transcription Factor Antibody clone SOX18/3271. Brown DAB staining is observed predominantly in cell nuclei, consistent with the nuclear localization of SOX18. The inset shows a negative control in which PBS replaced the primary antibody. Heat-induced epitope retrieval was performed using 10 mM Tris and 1 mM EDTA buffer (pH 9.0) for 20 minutes.



SOX18 Monoclonal Antibody SOX18/3271 IHC Analysis of Human Prostate Tissue. Immunohistochemical analysis of formalin-fixed, paraffin-embedded human prostate tissue using SOX18 Transcription Factor Antibody clone SOX18/3271. Brown DAB staining is observed predominantly in the nuclei of glandular epithelial cells. The inset shows a negative control in which PBS replaced the primary antibody. Heat-induced epitope retrieval was performed using 10 mM Tris and 1 mM EDTA buffer (pH 9.0) for 20 minutes.



SOX18 Monoclonal Antibody SOX18/3271 SDS-PAGE Purity Analysis. SDS-PAGE analysis of purified, BSA-free SOX18 Transcription Factor Antibody clone SOX18/3271 under reducing (R) and non-reducing (NR) conditions. The reducing sample shows bands corresponding to immunoglobulin heavy and light chains, while the non-reducing sample shows a higher-molecular-weight band consistent with intact antibody. This analysis provides information about antibody integrity and purity.



SOX18 Monoclonal Antibody SOX18/3271 HuProt Protein Microarray Analysis. Protein microarray characterization of SOX18 Transcription Factor Antibody clone SOX18/3271 using a HuProt array containing more than 19,000 full-length human proteins. SOX18 produced the strongest binding signal, with a Z-score of 136.89 and an S-score of 114.18, substantially exceeding the next-highest protein, CTBP2 (Z-score 21.71). The pronounced separation between SOX18 and other proteins on the array demonstrates exceptional target selectivity and minimal cross-reactivity under the tested conditions.

Description

SOX18 Monoclonal Antibody SOX18/3271 / SOX18 Transcription Factor Antibody targets SOX18, a DNA-binding transcription factor encoded by the SOX18 gene. This protein belongs to the SRY-related HMG-box family, whose members regulate gene expression during embryonic development and cellular differentiation. SOX18 has particularly important functions in vascular formation, lymphatic endothelial specification, and the development of specialized tissues.

SOX18 contains a conserved high-mobility group (HMG) domain that recognizes specific DNA sequences and influences the organization of transcriptional regulatory complexes. Through interactions with DNA and other proteins, SOX18 contributes to the activation of developmental gene expression programs. It belongs to the SOXF subgroup alongside SOX7 and SOX17, which have overlapping but distinct roles in endothelial biology and vascular development.

One of the principal functions of SOX18 is the regulation of endothelial cell differentiation during embryogenesis. Its activity contributes to blood vessel formation and vascular remodeling, helping establish the transcriptional identity of developing endothelial cells. SOX18 is also involved in lymphangiogenesis, the process through which lymphatic vessels arise and organize into a functional vascular network.

During early lymphatic development, SOX18 promotes expression of PROX1, a transcription factor essential for lymphatic endothelial specification. This regulatory interaction helps initiate the transition of selected venous endothelial cells toward a lymphatic identity. The coordinated activities of SOX18 and PROX1 are therefore important for establishing the lymphatic vascular system.

SOX18 also participates in hair follicle development and the formation of specialized vascular structures. Pathogenic variants in SOX18 are associated with hypotrichosis-lymphedema-telangiectasia syndrome, which involves abnormalities of hair growth, lymphatic function, and superficial blood vessels. These manifestations demonstrate the importance of SOX18-dependent transcriptional regulation across multiple developing tissues.

In cancer biology, SOX18 has been investigated for its involvement in tumor-associated angiogenesis, endothelial remodeling, and transcriptional programs associated with disease progression. Its expression and regulatory interactions may influence vascular behavior within the tumor microenvironment, although the biological consequences vary with cellular context.

Research into SOX18 continues to clarify the molecular mechanisms controlling endothelial identity, lymphatic development, and vascular-associated disease. SOX18 Monoclonal Antibody SOX18/3271 provides a clone-defined reagent for investigating this transcription factor in the context of developmental biology and tissue organization.

SOX18 is a transcription factor involved in endothelial differentiation, blood vessel formation, and lymphatic development. For an additional antibody targeting this protein, with western blot, immunofluorescence, and flow cytometry testing, see our SOX18 Antibody page.

Application Notes

Optimal dilution of the SOX18 Monoclonal Antibody SOX18/3271 / SOX18 Transcription Factor Antibody should be determined by the researcher.

Immunogen

A recombinant human SOX18 protein fragment (within amino acids 50-250) was used as the immunogen for the SOX18 antibody.

Storage

Aliquot the SOX18 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

SOX18 transcription factor antibody, SRY-box transcription factor 18 antibody, SRY-related HMG-box protein 18 antibody, Transcription factor SOX-18 antibody, SOX18 mouse monoclonal antibody

Copyright © NSJ Bioreagents. All rights reserved.