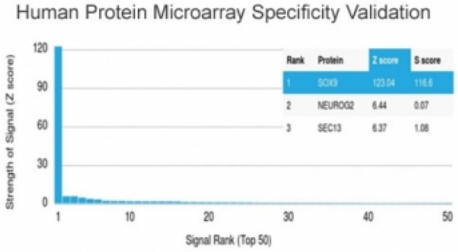
SOX9 Antibody [clone PCRP-SOX9-1E5] (V8973)

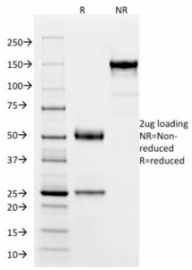
Catalog No.	Formulation	Size
V8973-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8973-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8973SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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-SOX9-1E5
Purity	Protein A/G affinity
UniProt	P48436
Localization	Nucleus
Applications	ELISA (order BSA-free Format For Coating) :
Limitations	This SOX9 antibody is available for research use only.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using SOX9 antibody (clone PCRP-SOX9-1E5). These results demonstrate the foremost specificity of the PCRP-SOX9-1E5 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 SOX9 antibody (clone PCRP-SOX9-1E5) as confirmation of integrity and purity.

Description

SOX9 Antibody recognizes SRY-box transcription factor 9, encoded by the SOX9 gene and commonly referred to as SRY-box 9. SOX9 is a nuclear transcription factor belonging to the SRY-related HMG-box family and functions as a master regulator of developmental lineage commitment. SOX9 Antibody detects a DNA-binding protein that localizes to the nucleus and controls gene expression programs essential for cartilage formation, gonadal differentiation, and organ development.

SOX9 contains a conserved high mobility group DNA-binding domain that enables sequence-specific interaction with regulatory elements in target genes. In skeletal development, SOX9 activates transcription of extracellular matrix components including collagen type II and aggrecan, coordinating chondrocyte differentiation and cartilage maturation. Sustained nuclear expression of SOX9 is required to maintain the chondrocyte phenotype throughout development.

During embryogenesis, SOX9 functions downstream of SRY to promote testis formation and Sertoli cell differentiation. Alterations in SOX9 expression or function are associated with campomelic dysplasia and disorders of sex development. Beyond developmental roles, SOX9 is expressed in progenitor cell populations within pancreas, liver, intestine, and lung, where it supports tissue maintenance and regenerative responses.

In cancer biology, SOX9 expression has been linked to epithelial-mesenchymal transition programs and tumor cell plasticity. Nuclear staining is characteristic of active SOX9 protein and reflects its role as a transcriptional regulator.

SOX9 Antibody is suitable for detecting SOX9 protein expression in research applications focused on development, stem cell biology, and disease-associated transcriptional regulation.

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

Application Notes

Optimal dilution of the SOX9 antibody should be determined by the researcher.

Immunogen

Recombinant human full-length SOX9 protein was used as the immunogen for the SOX9 antibody.

Storage

Aliquot the SOX9 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.