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## SOX9 Rabbit pAb

Catalog Number: bs-4177R

Target Protein: SOX9

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500), Flow-Cyt (1ug/test)

Reactivity: Human, Mouse, Rat (predicted:Rabbit, Pig, Horse)

Predicted MW: 56 kDa

Entrez Gene: 6662

Source: KLH conjugated synthetic peptide derived from human SOX9: 121-220/509.

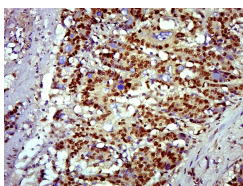
Purification: affinity purified by Protein A

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

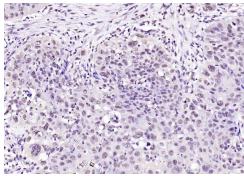
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** May be involved in chondrogenesis (cartilage development) during bone formation. Unlikely to play a role in sex determination but may function during testicular and ovarian differentiation (By similarity). Transcriptional activator. Acts early in neural crest formation, functioning redundantly with the other group E Sox factors sox8 and sox10 to induce neural crest progenitors. Induces sox10 expression downstream of wnt-signaling. Principally involved in development of the cranial neural crest, which is fated to form skeletal elements. Also required for otic placode specification during inner ear development.

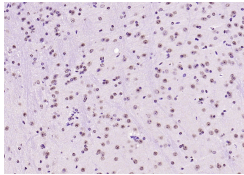
### VALIDATION IMAGES



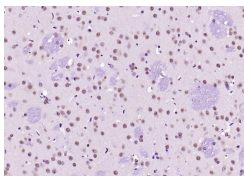
Paraformaldehyde-fixed, paraffin embedded (Human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOX9) Polyclonal Antibody, Unconjugated (bs-4177R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



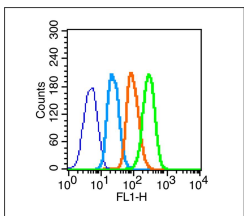
Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOX9) Polyclonal Antibody, Unconjugated (bs-4177R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



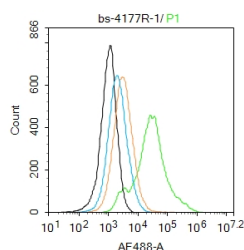
Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOX9) Polyclonal Antibody, Unconjugated (bs-4177R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOX9) Polyclonal Antibody, Unconjugated (bs-4177R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (blue line): U251 (fixed with 2% paraformaldehyde (10 min , then permeabilized) with 90% ice-cold methanol for 20 min on ice). Primary Antibody (green line): Rabbit Anti- SOX9 antibody (bs-4177R), dilution: 1µg /10<sup>6</sup> cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE, Dilution: 1µg /test.



Blank control:293T. Primary Antibody (green line): Rabbit Anti-SOX9 antibody (bs-4177R) Dilution: 1µg /10<sup>6</sup> cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF488 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

## PRODUCT SPECIFIC PUBLICATIONS

**[IF=10.273]** Tang Y et al. Structure and ingredient-based biomimetic scaffolds combining with autologous bone marrow-derived mesenchymal stem cell sheets for bone-tendon healing. *Biomaterials*. 2020 May;241:119837. ICC ; Rabbit . 32109704

**[IF=8.7]** Yu Han. et al. High-precision bioactive scaffold with dECM and extracellular vesicles targeting 4E-BP inhibition for cartilage injury repair. *MATER TODAY BIO*. 2024 Aug;27:101114 WB ; Rat . 10.1016/j.mtbio.2024.101114

**[IF=6.8]** Mudassar Iqbal. et al. Baicalin inhibits apoptosis and enhances chondrocyte proliferation in thiram-induced tibial dyschondroplasia in chickens by regulating Bcl-2/Caspase-9 and Sox-9/Collagen-II expressions. *ECOTOX ENVIRON SAFE*. 2023 Dec;268:115689 IHC ; Chicken . 37992645

**[IF=6.314]** Papaioannou et al. MicroRNA-140 Provides Robustness to the Regulation of Hypertrophic Chondrocyte Differentiation by the PTHrP-HDAC4 Pathway. (2015) *J.Bone.Miner.Res*. 30:1044-52 WB ; Mice . 25529628

**[IF=5.068]** Chen XY et al. Pulsed Magnetic Field Stimuli Can Promote Chondrogenic Differentiation of Superparamagnetic Iron Oxide Nanoparticles-Labeled Mesenchymal Stem Cells in Rats.(2018) *J Biomed Nanotechnol*. 14(12):2135-2145. WB ; Rat . 30305220