

SOX9 Recombinant Antibody - Rat IgG1 (Chimeric)

IRS280RT



Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human
Applications:	mIHC
Molecular Wt:	Predicted band size: 56 kDa

Description: SOX-9 recognizes the sequence CCTTGAG along with other members of the HMG-box class DNA-binding proteins. It is expressed by proliferating but not hypertrophic chondrocytes that is essential for differentiation of precursor cells into chondrocytes and, with steroidogenic factor 1, regulates transcription of the anti-Müllerian hormone (AMH) gene. SOX-9 also plays a pivotal role in male sexual development; by working with Sf1, SOX-9 can produce AMH in Sertoli cells to inhibit the creation of a female reproductive system. It also interacts with a few other genes to promote the development of male sexual organs. The process starts when the transcription factor Testis determining factor (encoded by the sex-determining region SRY of the Y chromosome) activates SOX-9 activity by binding to an enhancer sequence upstream of the gene. Next, Sox9 activates FGF9 and forms feedforward loops with FGF9 and PGD2. These loops are important for producing SOX-9; without these loops, SOX-9 would run out and the development of a female would almost certainly ensue. Activation of FGF9 by SOX-9 starts vital processes in male development, such as the creation of testis cords and the multiplication of Sertoli cells.

Immunogen: Recombinant protein within human SOX9 aa 140-340.

Positive control: Human intestine tissue.

Subcellular location: Nucleus.

Database links: SwissProt: P48436 Human

Recommended Dilutions:
mIHC 1:100

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

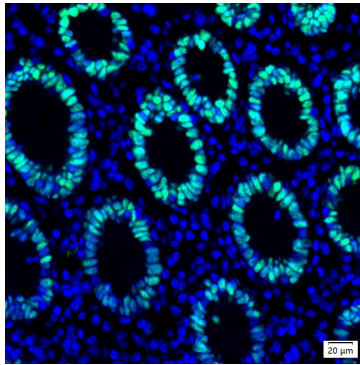


Fig1: mlHC analysis of human kidney tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rat anti-SOX9 antibody (IRS280RT) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900810). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

Note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Aggarwal S et al. SOX9 switch links regeneration to fibrosis at the single-cell level in mammalian kidneys. *Science*. 2024 Feb
2. Liu Y et al. Yap-Sox9 signaling determines hepatocyte plasticity and lineage-specific hepatocarcinogenesis. *J Hepatol*. 2022 Mar

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