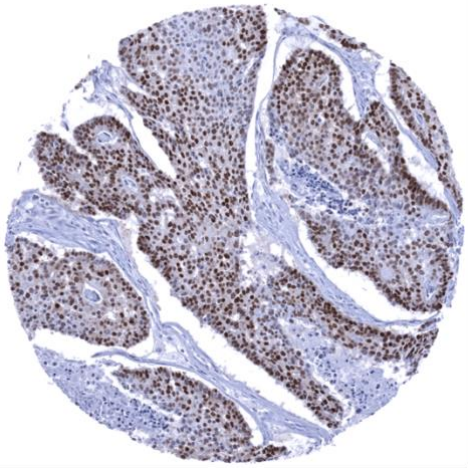
**MS Validated Antibodies GmbH**
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail: info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com

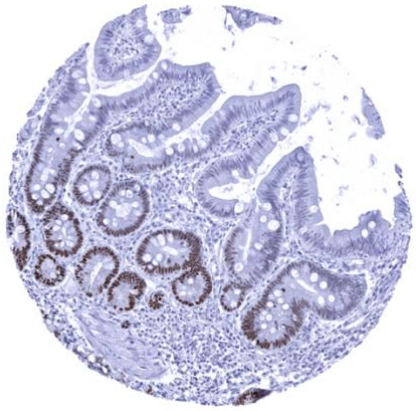
# Anti- SOX9 Antibody
# MSVA-709R / Recombinant Rabbit monoclonal

| | |
|---|---|
| **Human SwissProt** | P48436 |
| **Human Gene Symbol** | SOX9 |
| **Synonyms** | Campomelic Dysplasia Autosomal Sex Reversal (CMD1); SRA1; SRXX2; SRY (sex determining region Y) box 9; SRY related HMG box gene 9; Transcription factor SOX9 |
| **Specificity** | SOX9 |
| **Immunogen** | Recombinant humanSOX9 protein fragment (around aa 393-508) (exact sequence is proprietary) |
| **Isotype** | Rabbit / IgG |
| **Species Reactivity** | Human |
| **Localization** | Nucleus |

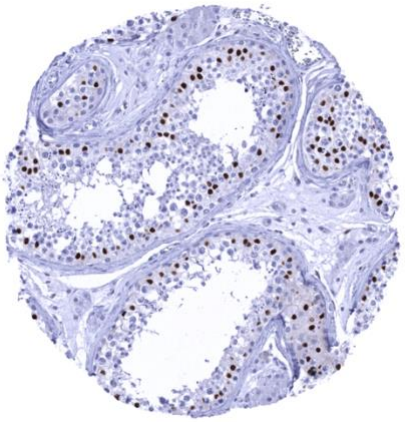
| | |
|---|---|
| **Storage & Stability** | Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required. |
| **Supplied As** | 200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA |
| **Positive Control** | Colon: A strong SOX9 immunostaining should be seen in epithelial cells of the crypt base. |
| **Negative Control** | Colon: SOX9 immunostaining should be absent in all non-epithelial cell types (except few cells in lymphoid germinal centres – if present). |



**Esophageal squamous cell carcinoma with strong SOX9 positivity of tumor cells.**



**Sharp decrease of nuclear SOX9 staining from the bases of crypts to the surface epithelial cells in the duodenum.**



**Strong SOX9 staining of Sertoli cells in the testis.**

## Biology

SOX-9 is an kDa transcription factor protein coded by the SOX-9 gene on chromosome 17q24.
SOX-9 specifically recognizes the sequence CCTTGAG. SOX-9 is a regulatory element for the development of cells and tissues. It shows well-defined temporal and spatial expression patterns that differ between particular cell types and tissues and thus exerts a role in cell lineage restriction and terminal differentiation. For example, SOX-9 plays a pivotal role in differentiation of chondrocytes and in male sexual development. By interacting with multiple other genes, SOX-9 inhibits the creation of a female reproductive system. In several adult ectoderm- and endoderm-derived tissues, SOX-9 expression is retained in stem cell pools. SOX-9 is also believed to play a role in cancer stem cells. A nuclear SOX-9 immunostaining occurs in a wide variety of tissues and (mostly epithelial) cell types. SOX-9 expression has been found – at varying levels – in a broad range of different tumor entities.

## Potential Research Applications

-The role of SOX9 is of considerable interest in many different fields such as for example in cancer, regeneration, and stem cell research.
-The prognostic role of SOX9 expression in cancer is under investigation.

## Protocol Suggestions

**Dilution: 1:50. pH 7,8 is optimal.** Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

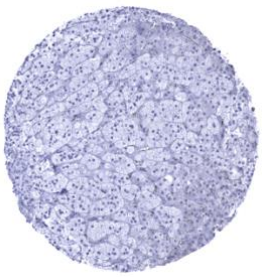
## Limitations

This antibody is available for **research use only** and is not approved for use in diagnostics.

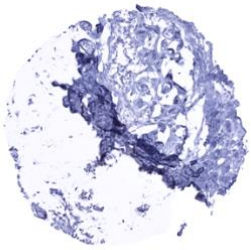
## Warranty

There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.

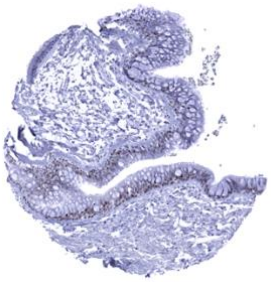
**MS Validated Antibodies GmbH**
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail: info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com



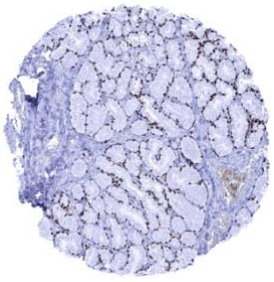
Adrenal gland - Few interspersed cells in the cortex showing weak to moderate SOX9 positivity.



Breast - Epithelial cells are largely SOX9 negative or may show faint staining.

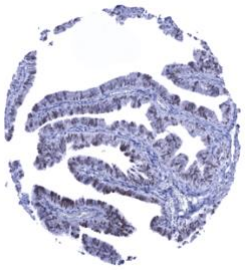


Bronchus, mucosa - Moderate to strong SOX9 positivity of most epithelial cells.

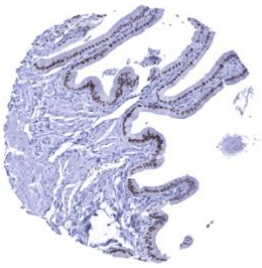


Duodenum, Brunner gland - Strong SOX9 staining of Brunner gland cells.

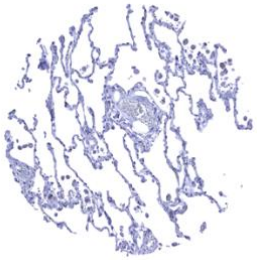
Esophagus, squamous epithelium - Weak to moderate nuclear SOX9 staining of the bottom 2-3 of squamous epithelium.



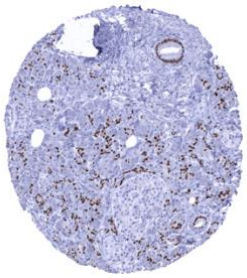
Fallopian tube, mucosa - Moderate to strong SOX9 staining of a large subset of epithelial cells.



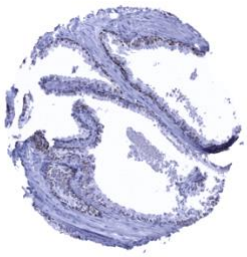
Gallbladder, epithelium



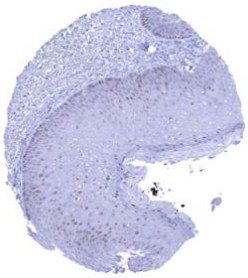
Lung



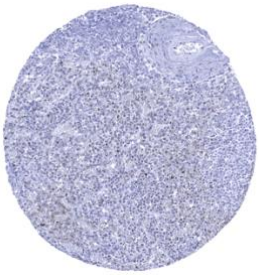
Pancreas - Strong nuclear SOX9 staining of intercalated and excretory ducts, while acinar cells are less often positive and islet cells are SOX9 negative.



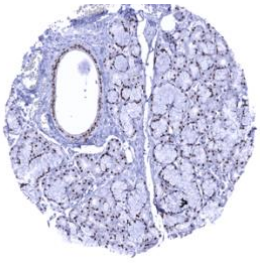
Prostate - Strong SOX9 positivity of basal cells while luminal cells show only a markedly weaker staining.



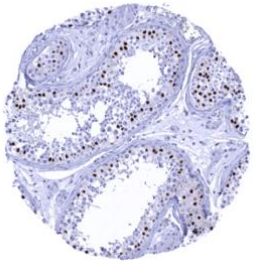
Skin – Weak to moderate nuclear SOX9 staining of the bottom 2-3 of squamous epithelium.



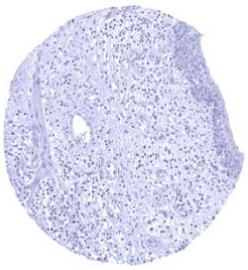
Spleen



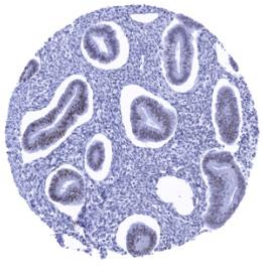
Sublingual gland - Moderate to strong nuclear SOX9 staining of all epithelial cell types.



Testis - Strong SOX9 staining of Sertoli cells.



Urinary bladder, urothelium - A weak SOX9 staining can occur in the superficial cell layers (umbrella cells) of the urothelium.



Uterus, endometrium (proliferation) - Moderate SOX9 positivity of epithelial cells. Stroma cells are SOX9 negative.