

**SOX10 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1876a****Specification****SOX10 Antibody - Product Information**

Application	<b>E, WB, IHC</b>
Primary Accession	<a href="#">P56693</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>49.9kDa KDa</b>

**Description**

This gene encodes a member of the SOX (SRY-related HMG-box) family of transcription factors involved in the regulation of embryonic development and in the determination of the cell fate. The encoded protein may act as a transcriptional activator after forming a protein complex with other proteins. This protein acts as a nucleocytoplasmic shuttle protein and is important for neural crest and peripheral nervous system development. Mutations in this gene are associated with Waardenburg-Shah and Waardenburg-Hirschsprung disease.

**Immunogen**

Purified recombinant fragment of human SOX10 (AA: 147-252) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**SOX10 Antibody - Additional Information**

**Gene ID** 6663

**Other Names**

Transcription factor SOX-10, SOX10

**Dilution**

E~~1/10000

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SOX10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**SOX10 Antibody - Protein Information**

## Name SOX10

### Function

Transcription factor that plays a central role in developing and mature glia (By similarity). Specifically activates expression of myelin genes, during oligodendrocyte (OL) maturation, such as DUSP15 and MYRF, thereby playing a central role in oligodendrocyte maturation and CNS myelination (By similarity). Once induced, MYRF cooperates with SOX10 to implement the myelination program (By similarity). Transcriptional activator of MITF, acting synergistically with PAX3 (PubMed:<a href="http://www.uniprot.org/citations/21965087" target="\_blank">21965087</a>). Transcriptional activator of MBP, via binding to the gene promoter (By similarity).

### Cellular Location

Cytoplasm. Nucleus. Mitochondrion outer membrane {ECO:0000250|UniProtKB:Q04888}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q04888}; Cytoplasmic side {ECO:0000250|UniProtKB:Q04888}

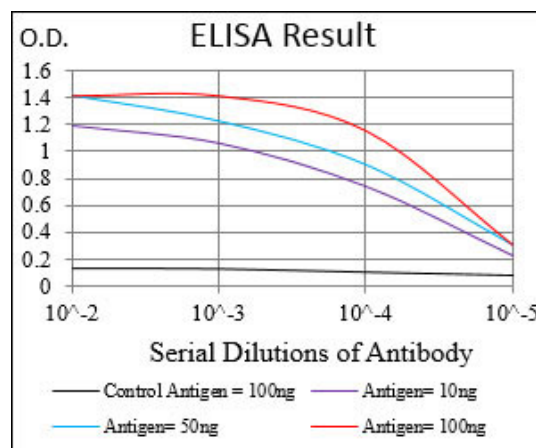
### Tissue Location

Expressed in fetal brain and in adult brain, heart, small intestine and colon

## SOX10 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



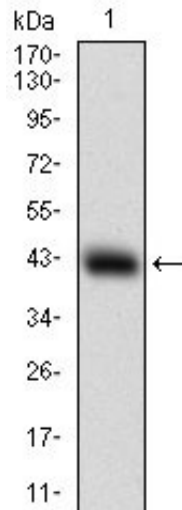


Figure 1: Western blot analysis using SOX10 mAb against human SOX10 recombinant protein. (Expected MW is 31.7 kDa)

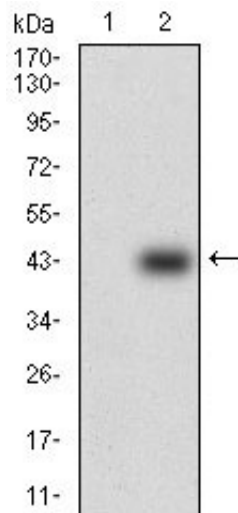


Figure 2: Western blot analysis using SOX10 mAb against HEK293 (1) and SOX10 (AA: 147-252)-hlgGfc transfected HEK293 (2) cell lysate.

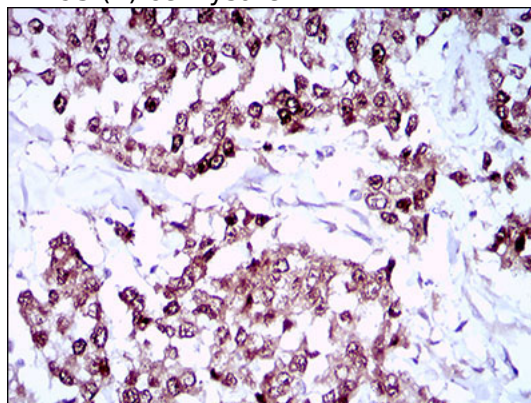


Figure 3: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using SOX10 mouse mAb with DAB staining.

### SOX10 Antibody - Background

This gene encodes a basic helix-loop-helix leucine zipper transcription factor of the Myc/Max/Mad

superfamily. This protein forms a heterodimeric complex and binds and activates, in a glucose-dependent manner, carbohydrate response element (ChoRE) motifs in the promoters of triglyceride synthesis genes. The gene is deleted in Williams-Beuren syndrome, a multisystem developmental disorder caused by the deletion of contiguous genes at chromosome 7q11.23. ; ; ;

#### **SOX10 Antibody - References**

1. J Am Acad Dermatol. 2012 Oct;67(4):717-26.
2. J Neurooncol. 2006 Jan;76(2):115-27.