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SOX10 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1876a

Product Information

Application	WB, IHC, E
Primary Accession	P56693
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2E7E8
Isotype	IgG1
Calculated MW	49911
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

Additional Information

Gene ID	6663
Other Names	Transcription factor SOX-10, SOX10
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~1/10000
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.

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:21965087). 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

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. ; ; ; ;

References

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

Images

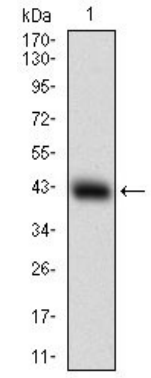


Figure 1: Western blot analysis using SOX10 mAb against human SOX10 recombinant protein. (Expected MW is 31.7 kDa)

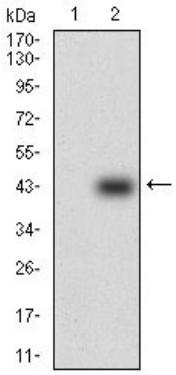
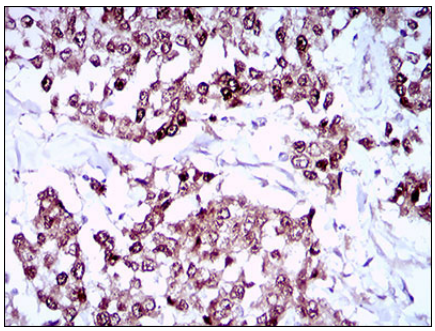


Figure 2: Western blot analysis using SOX10 mAb against HEK293 (1) and SOX10 (AA: 147-252)-hIgGFc transfected HEK293 (2) cell lysate.

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



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.