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SOX4 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2045A

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	Q06945
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18502
Calculated MW	47263
Antigen Region	86-114

Additional Information

Gene ID	6659
Other Names	Transcription factor SOX-4, SOX4
Target/Specificity	This SOX4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 86-114 amino acids from the N-terminal region of human SOX4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SOX4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SOX4 {ECO:0000303|PubMed:8268656, ECO:0000312|HGNC:HGNC:11200}
Function	Transcriptional activator that binds with high affinity to the T-cell enhancer motif 5'-AACAAAG-3' motif (PubMed:30661772). Required for IL17A-producing Vgamma2-positive gamma-delta T-cell maturation and development, via binding to regulator loci of RORC to modulate expression (By similarity).

	Involved in skeletal myoblast differentiation by promoting gene expression of CALD1 (PubMed:26291311).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00267, ECO:0000269|PubMed:16631117}
Tissue Location	Testis, brain, and heart.

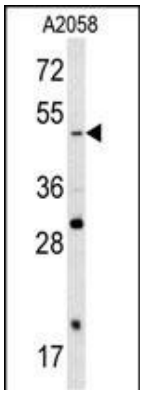
Background

SOX4 is 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 protein may act as a transcriptional regulator after forming a protein complex with other proteins, such as syndecan binding protein (syntenin). The protein may function in the apoptosis pathway leading to cell death as well as to tumorigenesis and may mediate downstream effects of parathyroid hormone (PTH) and PTH-related protein (PTHrP) in bone development. The solution structure has been resolved for the HMG-box of a similar mouse protein.

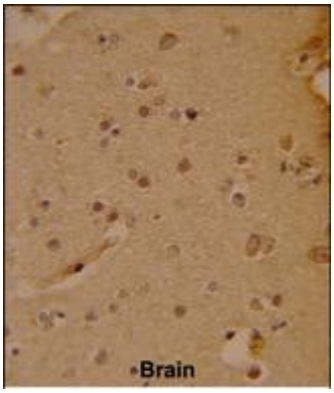
References

Farr C.J., Easty D.J.Mamm. Genome 4:577-584(1993)
Pan X., Li H., Zhang P.Biochem. Biophys. Res. Commun. 344:727-734(2006)

Images

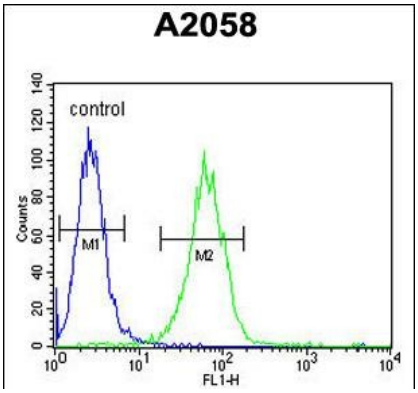


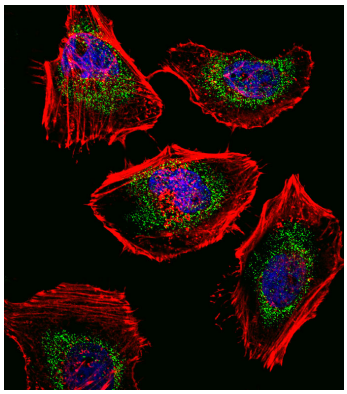
Western blot analysis of SOX4 antibody (N-term) (Cat. #AP2045a) in A2058 cell line lysates (35ug/lane). SOX4 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain reacted with SOX4 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

SOX4 Antibody (N-term) (Cat. #AP2045a) flow cytometric analysis of A2058 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.





Fluorescent confocal image of Hela cell stained with SOX4 Antibody (N-term)(Cat#AP2045a).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SOX4 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). SOX4 immunoreactivity is localized to Mitochondria significantly and Nucleus weakly.

Citations

- miR-129-3p, as a diagnostic and prognostic biomarker for renal cell carcinoma, attenuates cell migration and invasion via downregulating multiple metastasis-related genes.