

Anti-SOX2 Antibody

Catalog Number: M00105-3

About SOX2

This intronless gene encodes a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation of embryonic development and in the determination of cell fate. The product of this gene is required for stem-cell maintenance in the central nervous system, and also regulates gene expression in the stomach. Mutations in this gene have been associated with optic nerve hypoplasia and with syndromic microphthalmia, a severe form of structural eye malformation. This gene lies within an intron of another gene called SOX2 overlapping transcript (SOX2OT).

Overview

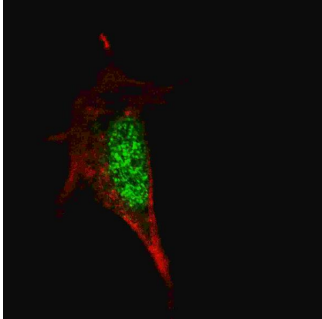
Product Name	Anti-SOX2 Antibody
Reactive Species	Human
Description	Boster Bio Anti-SOX2 Antibody (Catalog # M00105-3). Tested in WB, IF, Flow Cytometry, IHC-P application(s). This antibody reacts with Human.
Application	Flow Cytometry, IF, IHC-P, WB
Clonality	Monoclonal 57CT23.3.4
Formulation	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Storage Instructions	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.
Host	Mouse
Uniprot ID	P48431

Technical Details

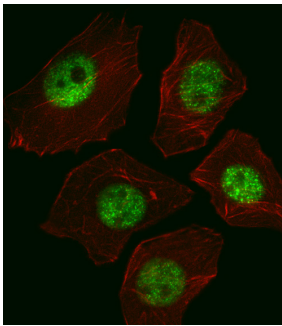
Immunogen	SOX2 recombinant protein is used to produce this monoclonal antibody.
Predicted Reactive Species	Bovine, Mouse
Isotype	IgG1
Purification	This antibody is purified through a protein G column, followed by dialysis against PBS.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: IF: 1:10-1:50

	WB: 1:4000 IHC-P: 1:50-1:100 FC: 1:10-1:50 IHC: 1:100
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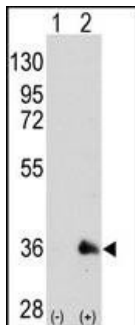
Anti-SOX2 Antibody (M00105-3) Images



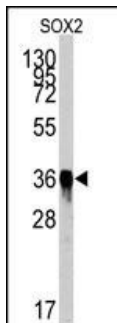
Fluorescent confocal image of SY5Y cells stained with SOX2 antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with M00105-3 SOX2 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse antibody (green) was used (1:1000, 1h). Note the highly specific localization of the SOX2 mainly to the nucleus.



Fluorescent image of A549 cell stained with SOX2 Antibody. A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SOX2 primary antibody (1:25, 1 h at 37°C. For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse 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. SOX2 immunoreactivity is localized to Nucleus significantly.

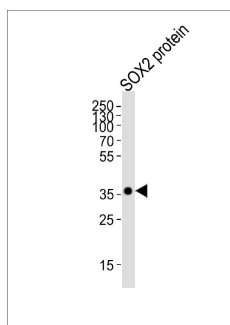
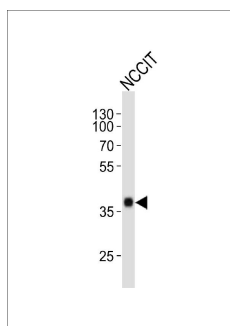


Western blot analysis of SOX2 (arrow) using mouse monoclonal SOX2 antibody. 293 cell lysates (2 g/lane) either nontransfected (Lane 1) or transiently transfected with the SOX2 gene (Lane 2)

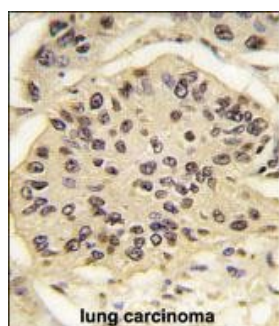


Western blot analysis of SOX2 Antibody by SOX2 recombinant protein. SOX2 (arrow) was detected using the purified Mab.

Western blot analysis of lysate from NCCIT cell line, using SOX2 Antibody. M00105-3 was diluted at 1:1000. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysate at 20g.



Western blot analysis of lysate from SOX2 protein, using SOX2 Antibody. M00105-3 was diluted at 1:4000. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysate at 20g.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with SOX2 Antibody, 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.

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