BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-SOX2 Rabbit Monoclonal Antibody

**Catalog Number:** M00105-1

## About SOX2

SRY(sex determining region Y)-box 2, also known as SOX2, is a transcription factor that is essential for maintaining self-renewal, or pluripotency of undifferentiated embryonic stem cells. Sox2 is a member of the Sox family of transcription factors, which have been shown to play key roles in many stages of mammalian development. This gene is mapped to 3q26.33. It is found that SOX2 can regulate OCT3/4 expression and maintains ES pluripotency through upstream transcription factors. SOX2 is identified as a lineage-survival oncogene in lung and esophageal squamous cell carcinoma. In addition to those, SOX2 has a critical role in maintenance of embryonic and neural stem cells and holds great promise in research involving induced pluripotency, an emerging and very promising field of regenerative medicine.

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## Overview

| | |
|---|---|
| Product Name | Anti-SOX2 Rabbit Monoclonal Antibody |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-SOX2 Rabbit Monoclonal Antibody catalog # M00105-1. Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat. |
| Application | IF, IHC, ICC, WB |
| Clonality | Monoclonal BIO-19 |
| Formulation | Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.<br>*This antibody is supplied in a stabilized formulation.<br>Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required. |
| Storage Instructions | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P48431 |

## Technical Details

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|---|---|
| Immunogen | A synthesized peptide derived from human SOX2 |
| Isotype | Rabbit IgG |
| Form | Liquid |
| Concentration | 0.5mg/ml |
| Purification | Affinity-chromatography |
| Suggested Dilutions | WB, 1:1000-2000<br>IHC, 1:50-200<br>ICC/IF, 1:50-200 |

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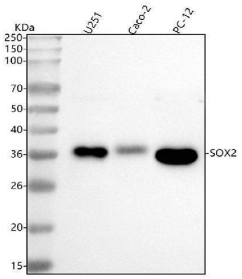
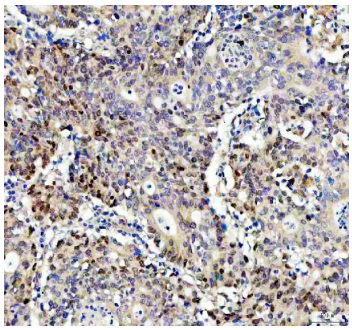
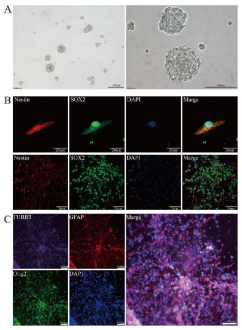
# Anti-SOX2 Rabbit Monoclonal Antibody (M00105-1) Images



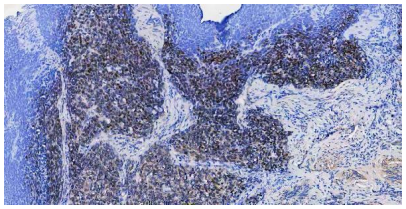

Western blot analysis of SOX2 using anti-SOX2 antibody (M00105-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U251 whole cell lysates, Lane 2: human CACO-2 whole cell lysates, Lane 3: rat PC-12 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SOX2 antigen affinity purified monoclonal antibody (Catalog # M00105-1) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SOX2 at approximately 34 kDa. The expected band size for SOX2 is at 34 kDa.



IHC analysis of FLOT1 using anti-FLOT1 antibody (M00105-1). FLOT1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-FLOT1 Antibody (M00105-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Identification of NSCs. (A) NSCs were cultured in serum-free medium for 3 days (Scale bar: 200/100 um). (B)Representative images of NSCs labelled with Nestin(red) and SOX2(green). The cell nuclei are stained blue with DAPI (Scale bar: 20/50 um). (C) Images of NSCs-derived differentiated cells. TUBB3 (purple), GFAP (red), and Olig2 (green) are positively expressed, indicating the presence of neurons, astrocytes, and oligodendrocytes, respectively (Scale bar: 100 um).Index in Materials Today Advances under a CC BY license. DOI: 10.1016/j.mtadv.2025.100639



IHC analysis of SOX2 using anti-SOX2 antibody (M00105-1). SOX2 was detected in a paraffin-embedded section of human cervical cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5

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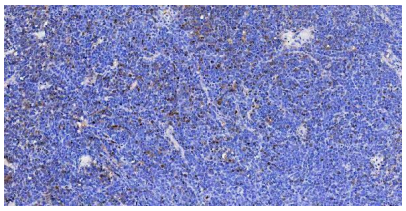
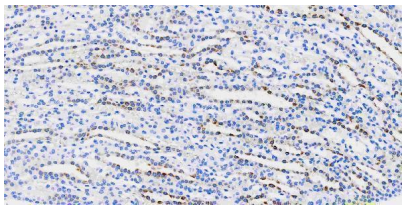
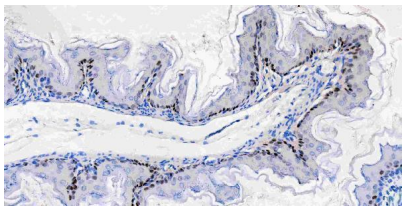
ug/ml rabbit anti-SOX2 Antibody (M00105-1) overnight at 4°C. HRP Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of SOX2 using anti-SOX2 antibody (M00105-1). SOX2 was detected in a paraffin-embedded section of human tonsilitis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-SOX2 Antibody (M00105-1) overnight at 4°C. HRP Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of SOX2 using anti-SOX2 antibody (M00105-1). SOX2 was detected in a paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-SOX2 Antibody (M00105-1) overnight at 4°C. HRP Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of SOX2 using anti-SOX2 antibody (M00105-1). SOX2 was detected in a paraffin-embedded section of mouse stomach tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-SOX2 Antibody (M00105-1) overnight at 4°C. HRP Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of FLOT1 using anti-FLOT1 antibody (M00105-1). FLOT1 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-FLOT1 Antibody (M00105-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C.

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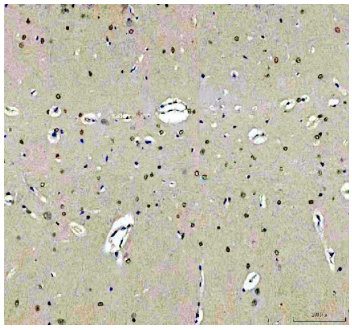
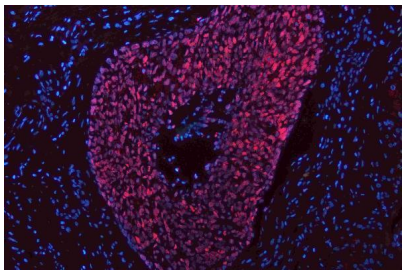
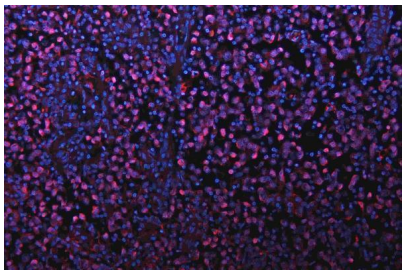
The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



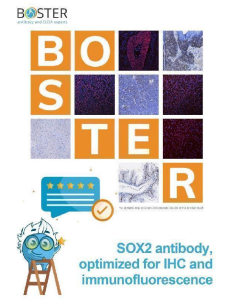
IHC analysis of FLOT1 using anti-FLOT1 antibody (M00105-1). FLOT1 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-FLOT1 Antibody (M00105-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of SOX2 using anti-SOX2 antibody (M00105-1). SOX2 was detected in a paraffin-embedded section of human cervical cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 25 ug/mL rabbit anti-SOX2 Antibody (M00105-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF analysis of SOX2 using anti-SOX2 antibody (M00105-1). SOX2 was detected in a paraffin-embedded section of human testis cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 25 ug/mL rabbit anti-SOX2 Antibody (M00105-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



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