

## Anti-Transcription factor SOX-2 SOX2 Antibody

Catalog Number: A00105

### About SOX2

SOX2 is 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. SOX2 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. The role of SOX2 in embryonic development suggested that it might be useful in the creation of stem cells that might be useful in cell replacement therapies in the treatment of degenerative diseases. Artificial stem cells, termed induced pluripotent stem (iPS) cells, can be created by expressing SOX2 and the transcription factors POU5F1, Klf4 and Lin28 along with c-Myc in mouse fibroblasts. Other experiments have shown that iPS cells could be generated using expression plasmids expressing POU5F1, SOX2, Klf4 and c-Myc, eliminating the need for virus introduction.

### Overview

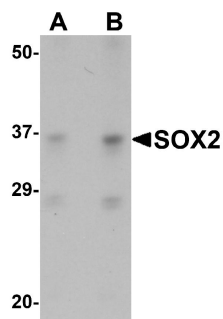
|                      |                                                                                                                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-Transcription factor SOX-2 SOX2 Antibody                                                                                                                                                 |
| Reactive Species     | Human, Mouse, Rat                                                                                                                                                                             |
| Description          | Boster Bio Anti-Transcription factor SOX-2 SOX2 Antibody (Catalog # A00105). Tested in ELISA, WB, ICC, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.                   |
| Application          | ELISA, IF, IHC-P, ICC, WB                                                                                                                                                                     |
| Clonality            | Polyclonal Clone: SK7                                                                                                                                                                         |
| Formulation          | SOX2 Antibody is supplied in PBS containing 0.02% sodium azide.                                                                                                                               |
| Storage Instructions | SOX2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Host                 | Rabbit                                                                                                                                                                                        |
| Uniprot ID           | P48431                                                                                                                                                                                        |

### Technical Details

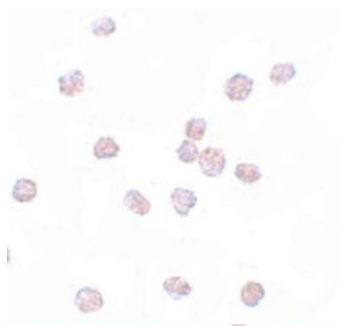
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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                  | SOX2 antibody was raised against a 15 amino acid synthetic peptide near the amino terminus of human SOX. The immunogen is located within the first 50 amino acids of SOX2. |
| Predicted Reactive Species | Chicken, Horse, Pig, Sheep                                                                                                                                                 |
| Cross Reactivity           | TAU antibody is human, mouse and rat reactive. Multiple isoforms of TAU are known to exist; this antibody will only detect the two longest isoforms.                       |
| Isotype                    | IgG                                                                                                                                                                        |
| Form                       | Liquid                                                                                                                                                                     |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Concentration       | 1 mg/mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Purification        | SOX2 Antibody is affinity chromatography purified via peptide column.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>SOX2 antibody can be used for detection of SOX2 by Western blot at 1 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL and immunocytochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.</p> <p>Antibody validated: Western Blot in mouse samples; Immunohistochemistry in mouse samples; Immunocytochemistry in mouse samples and Immunofluorescence in mouse samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.</p> |

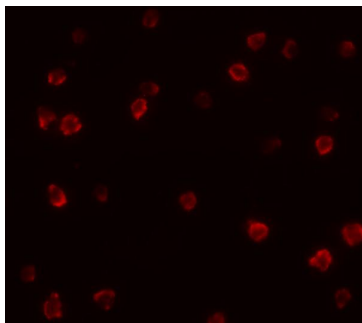
## Anti-Transcription factor SOX-2 SOX2 Antibody (A00105) Images



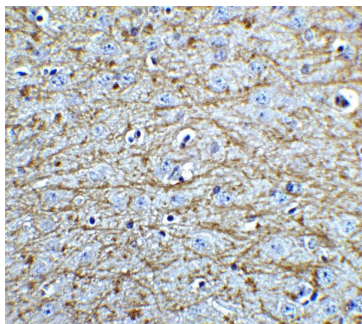
Western blot analysis of SOX2 in 3T3 cell lysate with SOX2 antibody at (A) 1 and (B) 2 ug/mL.



Immunocytochemistry of SOX2 in 3T3 cells with SOX2 antibody at 5 ug/mL.



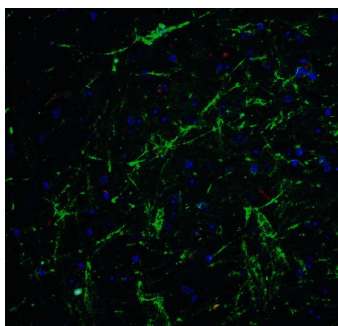
Immunofluorescence of SOX2 in 3T3 cells with SOX2 antibody at 20 ug/mL.



Immunohistochemistry of SOX2 in mouse brain tissue with SOX2 Antibody at 5 ug/mL.

Immunofluorescence of SOX2 in mouse brain tissue with SOX2 Antibody at 20 ug/mL.

Green: SOX2 antibody (A00105)  
Red: Phylloidin staining  
Blue: DAPI staining



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