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**Product Name: SOX2 Mouse Monoclonal Antibody****Catalog #: AMM85968**

For research use only.

**Summary**

<b>Description</b>	Mouse monoclonal Antibody
<b>Host</b>	Mouse
<b>Application</b>	WB,IHC,ICC,FC
<b>Reactivity</b>	Human, Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	Mouse IgG1
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Purified antibody in TBS with 0.05% sodium azide.
<b>Purification</b>	Affinity Purification

**Application**

<b>Dilution Ratio</b>	WB 1:200-1:2000,IHC 1:100-1:500,ICC 1:20-1:50,FC 1:20-1:50
<b>Molecular Weight</b>	34.3kDa

**Antigen Information**

<b>Gene Name</b>	SOX2
<b>Alternative Names</b>	Transcription factor SOX-2, SOX2
<b>Gene ID</b>	6657.0
<b>SwissProt ID</b>	P48431
<b>Immunogen</b>	SOX2 recombinant protein is used to produce this monoclonal antibody.

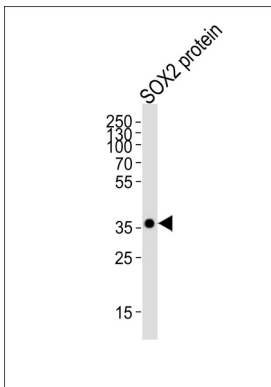
**Background**

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

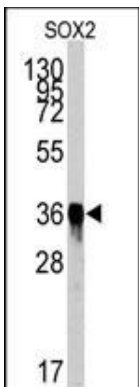
been associated with optic nerve hypoplasia and with syndromic microphthalmia, a severe form of structural eye malformation. This gene lies within an intron of another gene called SOX2 overlapping transcript (SOX2OT).

## Research Area

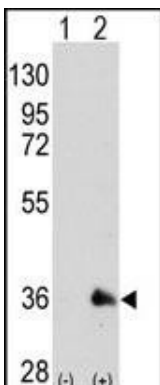
## Image Data



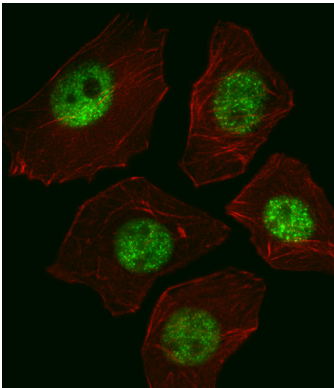
Western blot analysis of lysate from SOX2 protein, using SOX2 Antibody. SOX2 Mouse Monoclonal Antibody was diluted at 1:4000. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysate at 20 $\mu$ g.



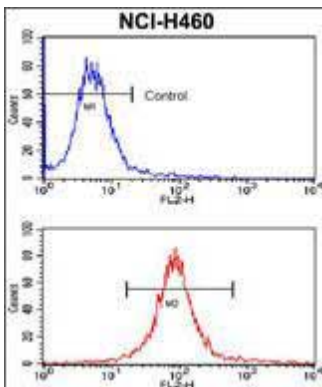
Western blot analysis of SOX2 Antibody (Cat.#AMM85968) by SOX2 recombinant protein. SOX2(arrow) was detected using the purified Mab.



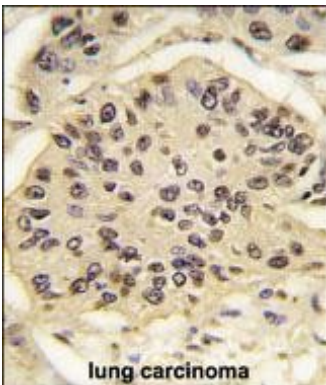
Western blot analysis of SOX2 (arrow) using mouse monoclonal SOX2 antibody. 293 cell lysates (2  $\mu$ g/lane) either nontransfected (Lane 1) or transiently transfected with the SOX2 gene (Lane 2) (Origene Technologies)



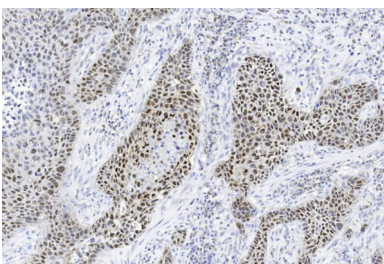
Fluorescent image of A549 cell stained with SOX2 Antibody (Cat#AMM85968). A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with SOX2 antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 h at 37°C). SOX2 immunoreactivity is localized to Nucleus significantly.



Flow cytometric analysis of NCI-H460 cells using SOX2 Monoclonal Antibody (bottom histogram) compared to a negative control cell (top histogram). PE-conjugated goat-anti-mouse secondary antibodies were used for the analysis.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with SOX2 Antibody (Cat.#AMM85968), 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.



Immunohistochemical analysis of paraffin-embedded Human Lung squamous cell carcinoma section using Pink1 (Cat#am2048a). am2048a was diluted at 1:100 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.