

SOX2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1496a**Specification**

SOX2 Antibody - Product Information

Application	WB, IF, IHC
Primary Accession	P48432
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	34kDa KDa

Description

Transcription factor that forms a trimeric complex with OCT4 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency.

Immunogen

Purified recombinant fragment of human SOX2 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

SOX2 Antibody - Additional Information

Gene ID 20674

Other Names

Transcription factor SOX-2, Sox2, Sox-2

Dilution

WB~~1/500 - 1/2000

IF~~1/200 - 1/1000

IHC~~1/500 - 1/2000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SOX2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SOX2 Antibody - Protein Information

Name Sox2

Synonyms Sox-2

Function

Transcription factor that forms a trimeric complex with POU5F1 (OCT3/4) on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206 (PubMed:15863505, PubMed:17097055, PubMed:19740739, PubMed:32703285). Binds to the proximal enhancer region of NANOG (PubMed:15863505). Critical for early embryogenesis and for embryonic stem cell pluripotency (By similarity). Downstream SRRT target that mediates the promotion of neural stem cell self-renewal (PubMed:22198669). Keeps neural cells undifferentiated by counteracting the activity of proneural proteins and suppresses neuronal differentiation (By similarity). May function as a switch in neuronal development (By similarity).

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00267, ECO:0000269|PubMed:17097055, ECO:0000269|PubMed:19349578, ECO:0000269|PubMed:32127020}. Cytoplasm Note=Nuclear import is facilitated by XPO4, a protein that usually acts as a nuclear export signal receptor.

Tissue Location

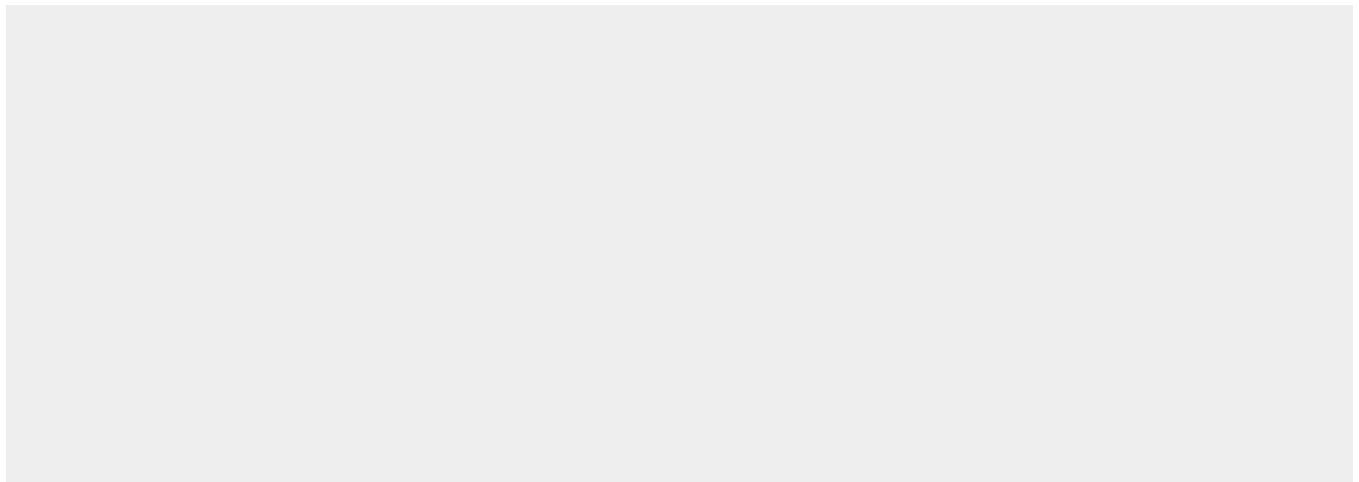
Expressed in the cochlea (at protein level) (PubMed:32127020). Expressed in the brain and retina (PubMed:15863505, PubMed:7590241). A very low level of expression is seen in the stomach and lung (PubMed:15863505, PubMed:7590241). Expressed in the kidney (PubMed:15863505).

SOX2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SOX2 Antibody - Images



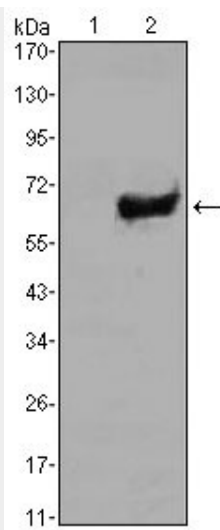


Figure 1: Western blot analysis using SOX2 mAb against HEK293 (1) and SOX2(AA: 2-317)-hlgGFc transfected HEK293 (2) cell lysate.

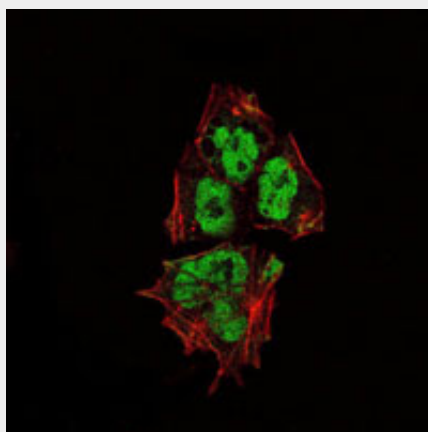


Figure 2: Immunofluorescence analysis of NTERA-2 cells using SOX2 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

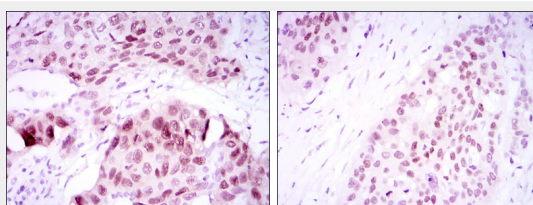


Figure 3: Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and esophageal cancer tissues (right) using SOX2 mouse mAb with DAB staining.

SOX2 Antibody - References

1. Proc Natl Acad Sci U S A. 2008 Nov 25;105(47):18396-401.
2. J Biol Chem. 2008 Nov 28;283(48):33730-5.
3. Nature. 2008 Oct 23;455(7216):1124-8.