

## ARG55243 anti-SOX2 antibody

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Mouse Monoclonal antibody recognizes SOX2
Tested Reactivity	Hu
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	57CT23.3.4
Isotype	IgG1
Target Name	SOX2
Species	Human
Immunogen	Recombinant protein of Human SOX2 (Swiss: P48431).
Conjugation	Un-conjugated
Alternate Names	Transcription factor SOX-2; MCOPS3; ANOP3

### Application Instructions

Application table	Application	Dilution
	FACS	1:10 - 1:50
	ICC/IF	1:100
	IHC-P	Assay-dependent
	WB	1:200 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	NCCIT	

### Properties

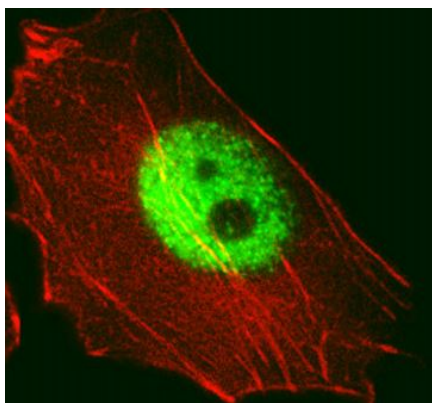
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

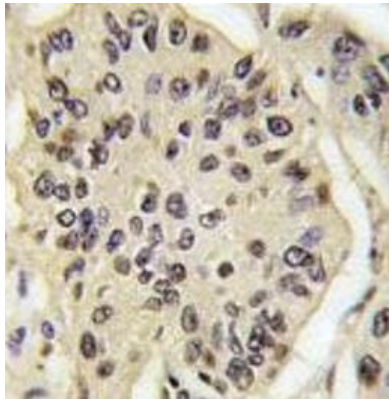
Database links	<a href="#">GeneID: 6657 Human</a> <a href="#">Swiss-port # P48431 Human</a>
Gene Symbol	SOX2
Gene Full Name	SRY (sex determining region Y)-box 2
Background	This intronless gene encodes a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation 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). [provided by RefSeq, Jul 2008]
Function	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 (By similarity). Critical for early embryogenesis and for embryonic stem cell pluripotency. May function as a switch in neuronal development. Downstream SRRT target that mediates the promotion of neural stem cell self-renewal (By similarity). Keeps neural cells undifferentiated by counteracting the activity of proneural proteins and suppresses neuronal differentiation (By similarity). [UniProt]
Research Area	Developmental Biology antibody; Gene Regulation antibody; Neuroscience antibody
Calculated Mw	34 kDa
PTM	Sumoylation inhibits binding on DNA and negatively regulates the FGF4 transactivation.
Cellular Localization	Nucleus.

## Images



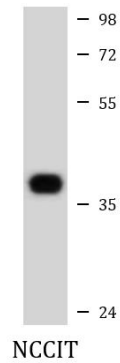
ARG55243 anti-SOX2 antibody ICC/IF image

Immunofluorescence: A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then stained with ARG55243 anti-SOX2 antibody (green) at 1:25 dilution, 1 hour at 37°C. Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 hour at 37°C).



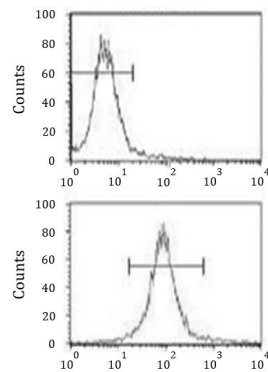
ARG55243 anti-SOX2 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human lung carcinoma tissue stained with ARG55243 anti-SOX2 antibody.



ARG55243 anti-SOX2 antibody WB image

Western blot: 20 µg of NCCIT cell lysate stained with ARG55243 anti-SOX2 antibody at 1:1000 dilution.



ARG55243 anti-SOX2 antibody FACS image

Flow Cytometry: NCI-H460 cells stained with ARG55243 anti-SOX2 antibody (bottom histogram) or without primary antibody control (top histogram), followed by incubation with PE labelled secondary antibody.