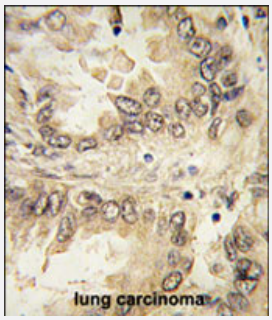
SOX2 polyclonal antibody

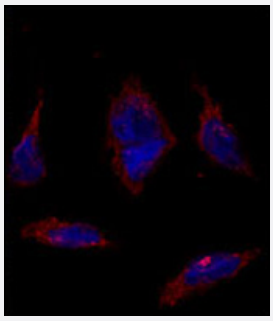
Catalog # PAB3876 Size 400 uL

Applications



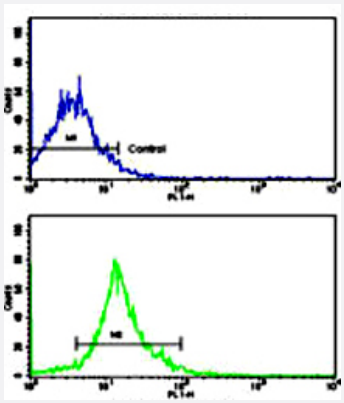
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with SOX2 polyclonal antibody (Cat # PAB3876) , 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.



Immunofluorescence

Immunofluorescence analysis of SOX2 polyclonal antibody (Cat # PAB3876) in HeLa cells. 0.025 mg/mL primary antibody was followed by Alexa-Fluor-546-conjugated donkey anti-rabbit IgG (H+L). Alexa-Fluor-546 emits orange fluorescence. Blue counterstaining is DAPI.



Flow Cytometry

Flow cytometric analysis of NCI-H292 cells using SOX2 polyclonal antibody (Cat # PAB3876)(bottom histogram) compared to a negative control cell (top histogram).
FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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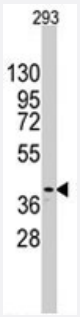
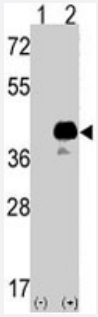


Western Blot (Cell lysate)

Western blot analysis of SOX2 polyclonal antibody (Cat # PAB3876) in 293 cell line lysates (35 ug/lane). SOX2 (arrow) was detected using the purified polyclonal antibody.



Western Blot (Transfected lysate)

Western blot analysis of SOX2 (arrow) using rabbit SOX2 polyclonal antibody (Cat # PAB3876). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the SOX2 gene (Lane 2) (Origene Technologies).

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of SOX2.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to N-terminus of human SOX2.
Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Ammonium sulfate precipitation
Recommend Usage	Flow Cytometry (1:10-50) Immunofluorescence (1:10-50) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) (1:10-50) Western Blot (1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

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Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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- Immunofluorescence

  Immunofluorescence analysis of SOX2 polyclonal antibody (Cat # PAB3876) in HeLa cells. 0.025 mg/mL primary antibody was followed by Alexa-Fluor-546-conjugated donkey anti-rabbit IgG (H+L). Alexa-Fluor-546 emits orange fluorescence. Blue counterstaining is DAPI.

- Flow Cytometry

  Flow cytometric analysis of NCI-H292 cells using SOX2 polyclonal antibody (Cat # PAB3876)(bottom histogram) compared to a negative control cell (top histogram).
  FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

- Western Blot (Cell lysate)

  Western blot analysis of SOX2 polyclonal antibody (Cat # PAB3876) in 293 cell line lysates (35 ug/lane). SOX2 (arrow) was detected using the purified polyclonal antibody.

- Western Blot (Transfected lysate)

  Western blot analysis of SOX2 (arrow) using rabbit SOX2 polyclonal antibody (Cat # PAB3876). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the SOX2 gene (Lane 2) (Origene Technologies).

Gene Info — SOX2

Entrez GeneID	6657
Protein Accession#	NP_003097;P48431
Gene Name	SOX2
Gene Alias	ANOP3, MCOPS3, MGC2413
Gene Description	SRY (sex determining region Y)-box 2
Omim ID	184429 206900
Gene Ontology	Hyperlink

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Gene Summary	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 (SOX2 OT). [provided by RefSeq
Other Designations	SRY-related HMG-box gene 2|sex-determining region Y-box 2|transcription factor SOX2

Publication Reference

- Crystal structure of a POU/HMG/DNA ternary complex suggests differential assembly of Oct4 and Sox2 on two enhancers.

  Remenyi A, Lins K, Nissen LJ, Reinbold R, Scholer HR, Wilmanns M.

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- POU5F1 (OCT3/4) identifies cells with pluripotent potential in human germ cell tumors.

  Looijenga LH, Stoop H, de Leeuw HP, de Gouveia Brazao CA, Gillis AJ, van Roozendaal KE, van Zoelen EJ, Weber RF, Wolffenbuttel KP, van Dekken H, Honecker F, Bokemeyer C, Perlman EJ, Schneider DT, Kononen J, Sauter G, Oosterhuis JW.

  Cancer Research 2003 May; 63(9):2244.

- Formation of pluripotent stem cells in the mammalian embryo depends on the POU transcription factor Oct4.

  Nichols J, Zevnik B, Anastassiadis K, Niwa H, Klewe-Nebenius D, Chambers I, Scholer H, Smith A.

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Disease

- Anophthalmos
- Coloboma
- Diabetes Mellitus
- Diabetic Nephropathies
- Genetic Predisposition to Disease
- Kidney Failure
- Microphthalmos

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- Myopia

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