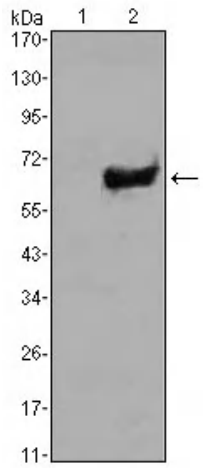
SOX-2 Monoclonal Antibody

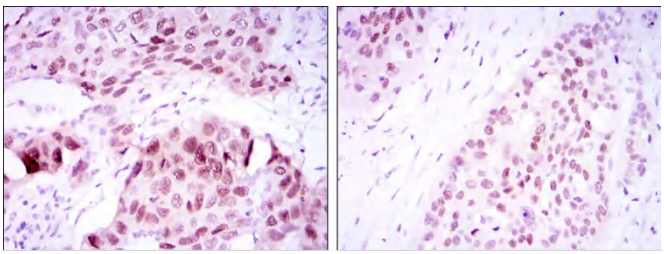
Catalog No	YP-Ab-01022
Isotype	IgG
Reactivity	Human
Applications	WB;IHC;IF;ELISA
Gene Name	SOX2
Protein Name	Transcription factor SOX-2
Immunogen	Purified recombinant fragment of human SOX-2 expressed in E. Coli.
Specificity	SOX-2 Monoclonal Antibody detects endogenous levels of SOX-2 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	SOX2; Transcription factor SOX-2
Observed Band	
Cell Pathway	Nucleus speckle . Cytoplasm . Nucleus . Acetylation contributes to its nuclear localization and deacetylation by HDAC3 induces a cytoplasmic delocalization (By similarity). Colocalizes in the nucleus with ZNF208 isoform KRAB-O and tyrosine hydroxylase (TH) (By similarity). Colocalizes with SOX6 in speckles. Colocalizes with CAML in the nucleus (By similarity). Nuclear import is facilitated by XPO4, a protein that usually acts as a nuclear export signal receptor (By similarity). .
Tissue Specificity	Fetal brain,Lung,Retina,
Function	disease:Defects in SOX2 are the cause of microphthalmia syndromic type 3 (MCOPS3) [MIM:206900]. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities. MCOPS3 is characterized by the rare association of malformations including uni- or bilateral anophthalmia or microphthalmia, and esophageal atresia with trachoesophageal fistula.,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. Critical for early embryogenesis and for embryonic stem cell

	pluripotency.,online information:Sox2 entry,PTM:Sumoylation inhibits bin
Background	SRY-box 2(SOX2) Homo sapiens 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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

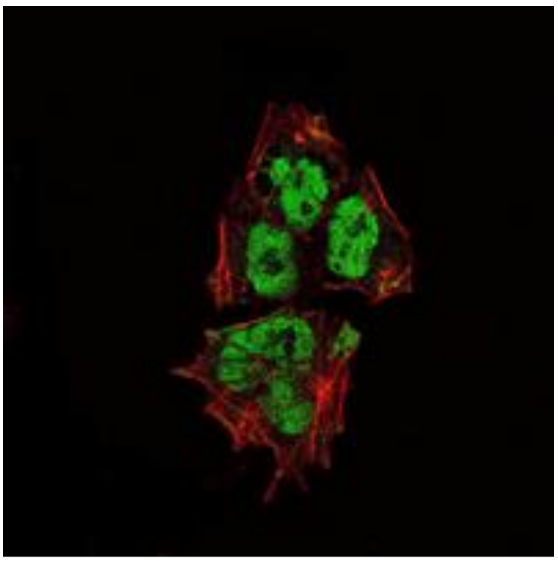
Products Images



Western Blot analysis using SOX-2 Monoclonal Antibody against HEK293 (1) and SOX2-hIgGFc transfected HEK293 (2) cell lysate.



Immunohistochemistry analysis of paraffin-embedded lung cancer tissues (left) and esophageal cancer tissues (right) with DAB staining using SOX-2 Monoclonal Antibody.



Immunofluorescence analysis of NTERA-2 cells using SOX-2 Monoclonal Antibody (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.