



Rabbit Anti-SOX2 antibody

SL23176R

Product Name:	SOX2
Chinese Name:	胚胎Stem cells关键蛋白抗体
Alias:	transcriptional factor SOX2; ANOP3; cb236; Delta EF2a; lcc; MCOPS3; MGC148683; MGC2413; RGD1565646; Sex determining region Y box 2; Sex determining region Y-box 2; SOX 2; SRY (sex determining region Y) box 2; SRY box containing gene 2; SRY related HMG box 2; SRY related HMG box gene 2; SRY-box 2; ysb; SOX2 HUMAN; Transcription factor SOX-2; SOX2 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	34kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SOX2:1-100/317
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

Subunit:

Interacts with ZSCAN10. Interacts with SOX3 and FGFR1.

Subcellular Location:

Nucleus.

Post-translational modifications:

Sumoylation inhibits binding on DNA and negatively regulates the FGF4 transactivation.

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.

Similarity:

Contains 1 HMG box DNA-binding domain.

SWISS:

P48431

Gene ID:

6657

Database links:

[Entrez Gene: 6657](#)Human

[Entrez Gene: 20674](#)Mouse

[Omin: 184429](#)Human

[SwissProt: P48431](#)Human

[SwissProt: P48432](#)Mouse

[Unigene: 518438](#)Human

[Unigene: 65396](#)Mouse

Important Note:

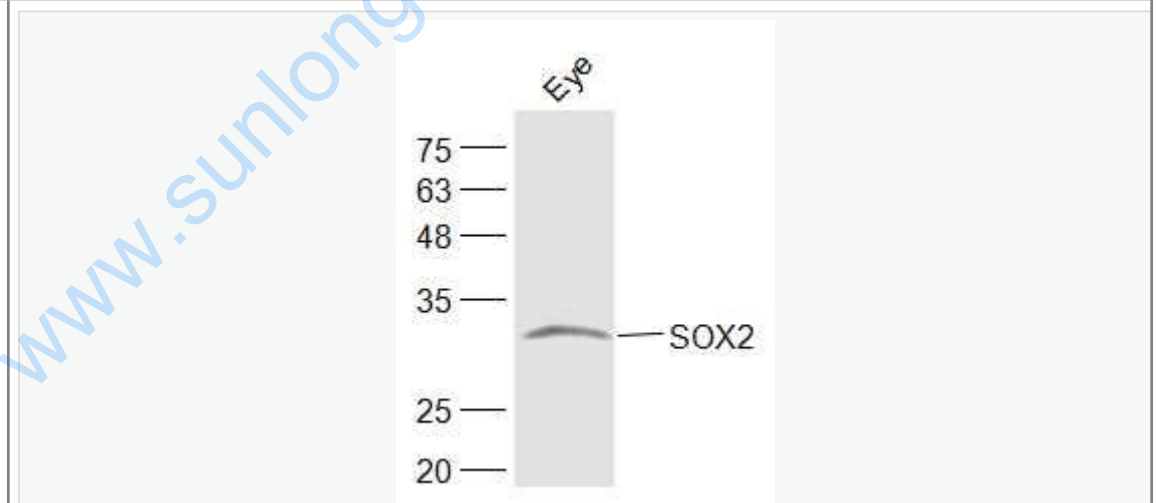
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Embryonic Stem Cell Marker (胚胎Stem cellsMaker)

转录因子:胚胎Stem

cells相关蛋白Sox2是sox基因家族的一个成员,Sox2与Oct4、Nanog一样是胚胎Stem cells重要的转录因子,是维持Stem cells特性中起到重要的作用因子;由于它在早期胚胎发生、神经分化和晶状体发育等多种重要的发育事件中都起着关键的作用,从而引起了越来越广泛的关注。

Picture:



Sample:

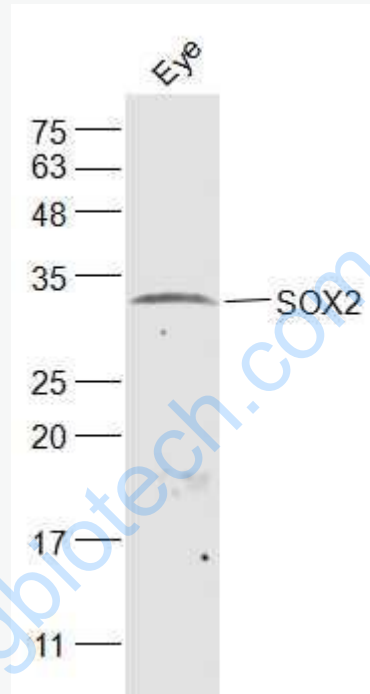
Eye(Rat) Lysate at 40 ug

Primary: Anti-SOX2 (SL23176R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 34 kD

Observed band size: 34 kD



Sample:

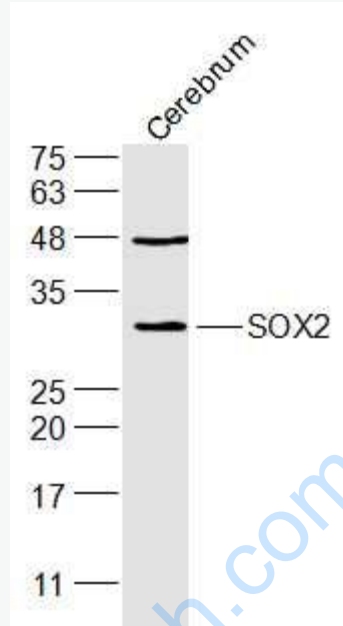
Eye (Mouse) Lysate at 40 ug

Primary: Anti-SOX2 (SL23176R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 34 kD

Observed band size: 34 kD



Sample:

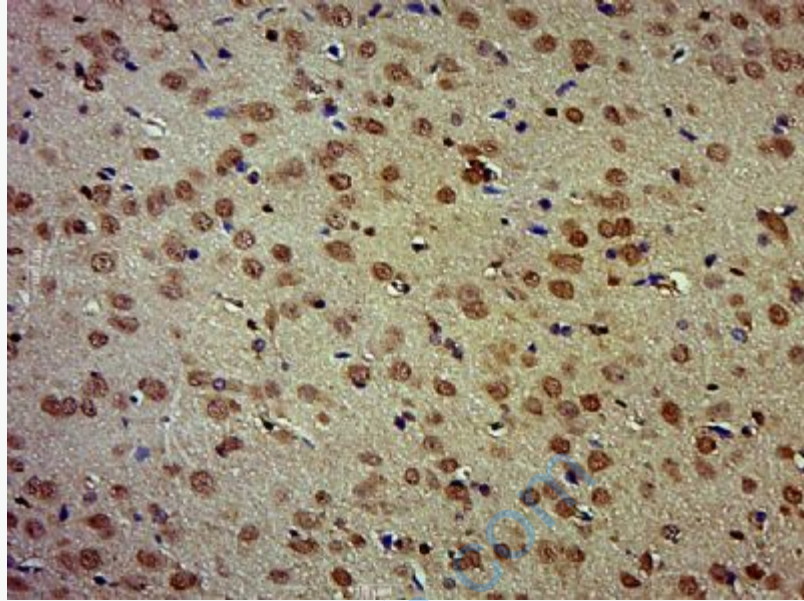
Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-SOX2 (SL23176R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 34 kD

Observed band size: 34 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOX2) Polyclonal Antibody, Unconjugated (SL23176R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.