SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
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Rabbit Anti-SOX2 antibody

SL0523R

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.
Research Area	Tumour Cell biology Neurobiology Stem cells Cell type markers
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat (predicted:Human,Chicken,Dog,Cow,Horse,Sheep)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	34kDa
Cellular localization	The nucleus
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human SOX2: 227-317/317
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic

or diagnostic applications.

PubMed

PubMed

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].

Product Detail

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:
P48432

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Gene ID:
6657

Database links:

Entrez Gene: 6657 Human

Entrez Gene: 20674 Mouse

Omim: 184429 Human

SwissProt: P48431 Human

SwissProt: P48432 Mouse

Unigene: 518438 Human

Unigene: 65396 Mouse

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。

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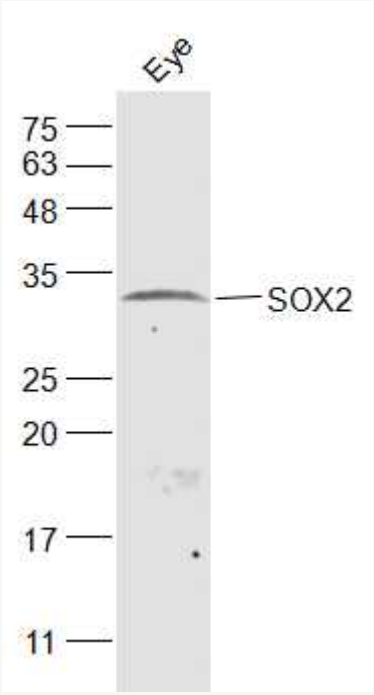
Product Picture



Sample:

Eye (Mouse) Lysate at 40 ug

Primary: Anti-SOX2 (SL0523R) at 1/300 dilution

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

Predicted band size: 34 kD

Observed band size: 34 kD

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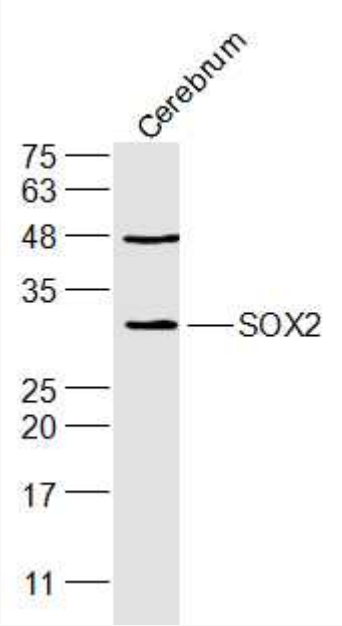

Sample:

Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-SOX2 (SL0523R) at 1/300 dilution

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

Predicted band size: 34 kD

Observed band size: 34 kD

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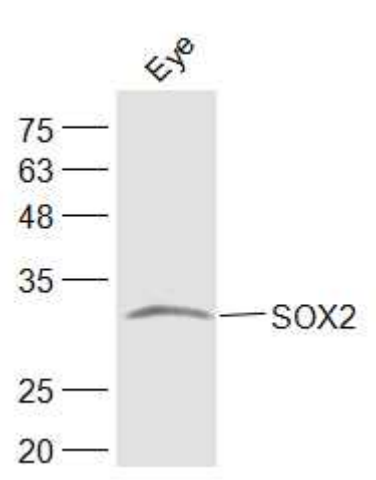

Sample:

Eye(Rat) Lysate at 40 ug

Primary: Anti-SOX2 (SL0523R) at 1/300 dilution

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

Predicted band size: 34 kD

Observed band size: 34 kD

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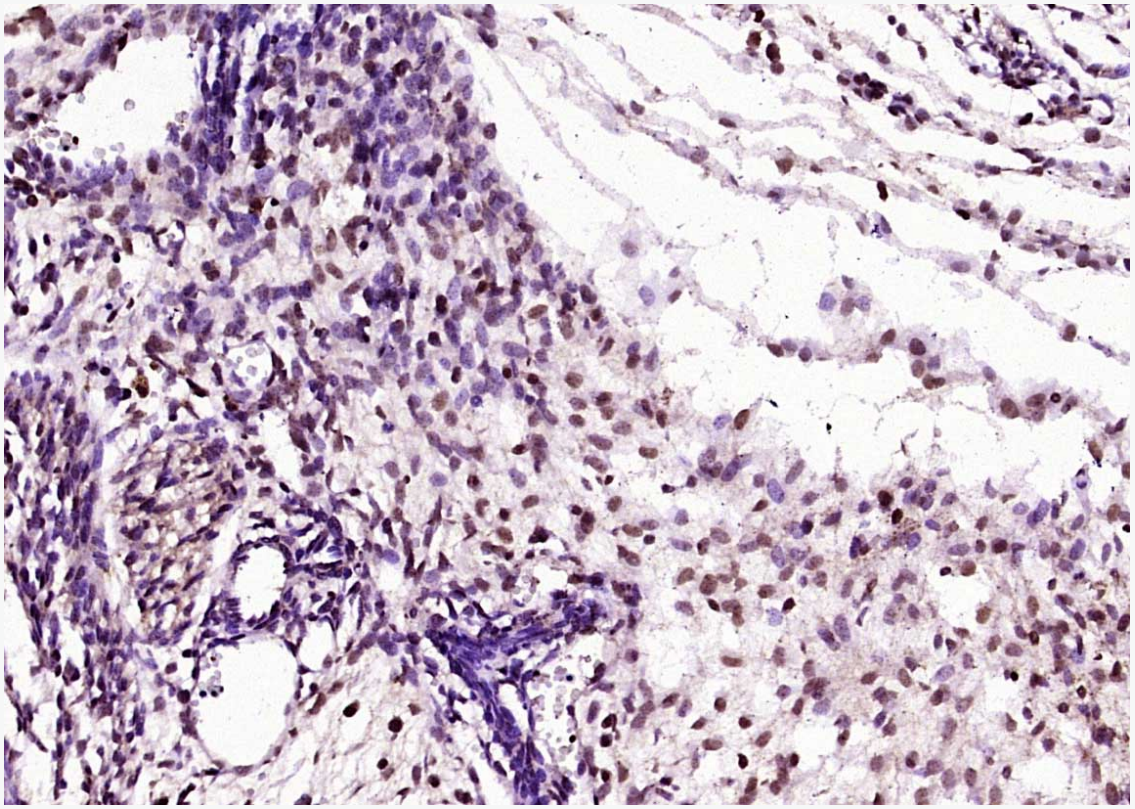

Paraformaldehyde-fixed, paraffin embedded (Mouse embryo); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SOX2) Polyclonal Antibody, Unconjugated (SL0523R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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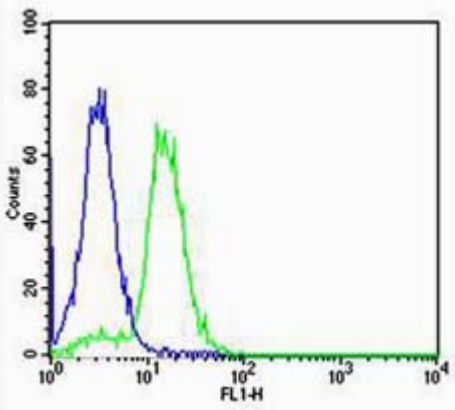
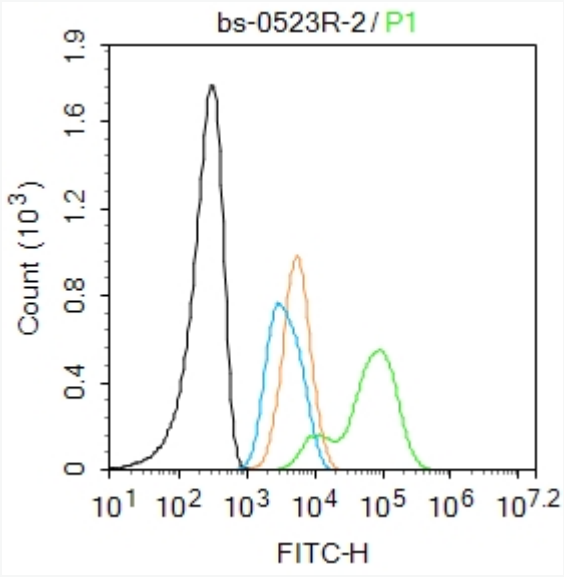


Cell: NCCIT

Concentration:1:100

Host/Isotype:Rabbit/IgG

Flow cytometric analysis of Rabbit IgG isotype control (Cat#: SL0523R) on NCCIT(green) compared with control in the absence of primary antibody (blue) followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG(H+L) secondary antibody .



Blank control: Hela.

Primary Antibody (green line): Rabbit Anti-SOX2 antibody (SL0523R)

Dilution: 1μg /10^6 cells;

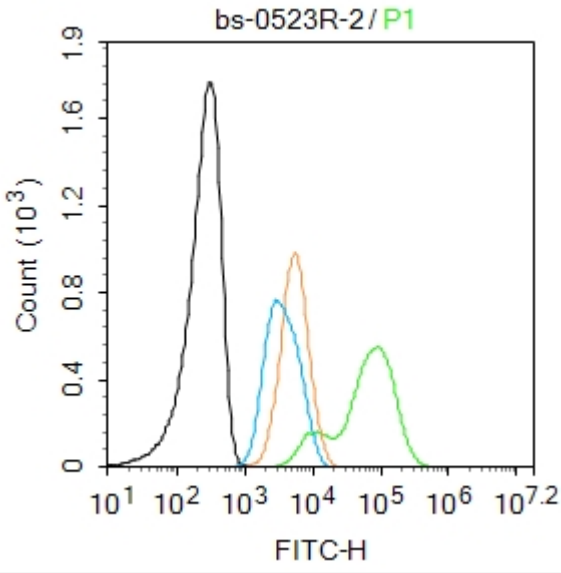
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1μg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control: Hela.

Primary Antibody (green line): Rabbit Anti-SOX2 antibody (SL0523R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1μg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

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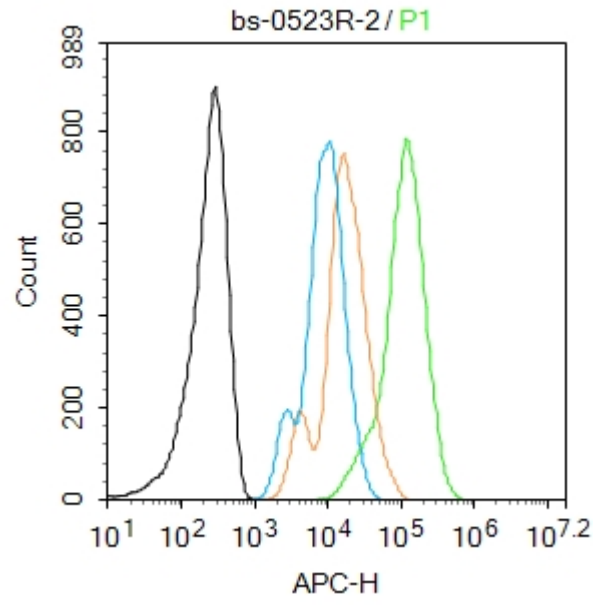

Blank control: U251.

Primary Antibody (green line): Rabbit Anti-SOX2 antibody (SL0523R)

Dilution: 2µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events

was performed.