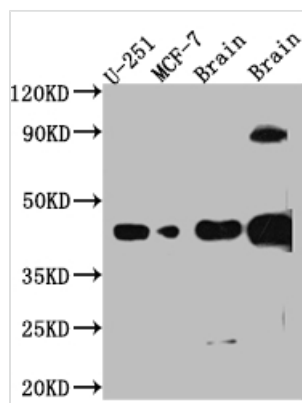




SOX2 Recombinant Monoclonal Antibody

Product Code	CSB-RA973770A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P48431
Immunogen	A synthesized peptide derived from human SOX2
Species Reactivity	Human, Mouse, Rat
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	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).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Neuroscience; Developmental biology; Signal transduction; Stem cells
Gene Names	SOX2
Clone No.	2E1

Image

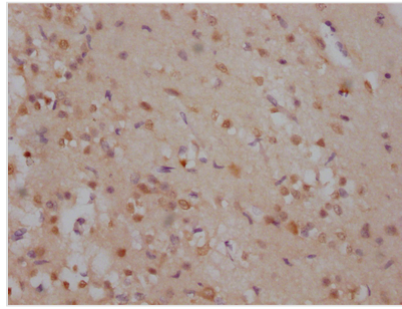


Western Blot

Positive WB detected in: U-251 whole cell lysate, MCF-7 whole cell lysate, Mouse Brain whole cell lysate, Rat Brain whole cell lysate
All lanes: SOX2 antibody at 1:1000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 35 kDa
Observed band size: 40 kDa



IHC image of CSB-RA973770A0HU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The process of producing a SOX2 recombinant monoclonal antibody involves four main steps. First, the gene coding for the SOX2 monoclonal antibody is sequenced. Then, the gene is incorporated into a plasmid vector, which is introduced into a host cell line. Next, the SOX2 recombinant monoclonal antibody is purified from the cell culture supernatant using affinity chromatography. The SOX2 monoclonal antibody is made using a synthesized peptide derived from human SOX2 as the immunogen. The SOX2 recombinant monoclonal antibody is recommended for use in ELISA, WB, and IHC applications to recognize SOX2 protein from human, mouse, and rat samples.

The SOX2 protein is a transcription factor that plays several important roles in cells. It is involved in regulating the expression of genes that are important for self-renewal and pluripotency of stem cells. It is also involved in the development of various tissues and organs during embryonic development, including the brain, eyes, and inner ear. In addition, SOX2 is involved in the maintenance of adult stem cells in tissues such as the skin, lungs, and gastrointestinal tract. Dysregulation of SOX2 expression or function has been implicated in various diseases, including cancer and neurodegenerative disorders.