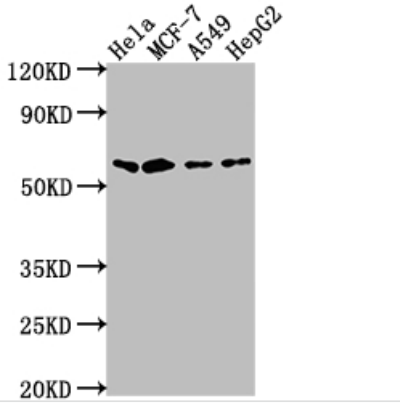
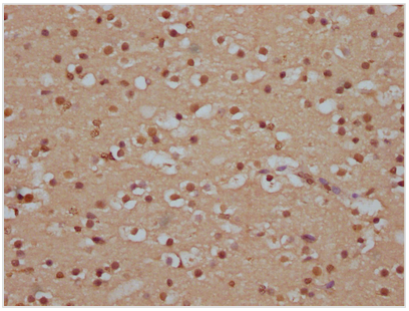
SOX10 Recombinant Monoclonal Antibody

Product Code	CSB-RA592917A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P56693
Immunogen	A synthesized peptide derived from human SOX10
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200
Relevance	Transcription factor that seems to function synergistically with the POU domain protein TST-1/OCT6/SCIP. Could confer cell specificity to the function of other transcription factors in developing and mature glia (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; Stem cells
Gene Names	SOX10
Clone No.	8E1

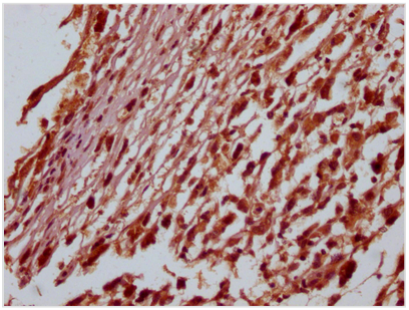
Image



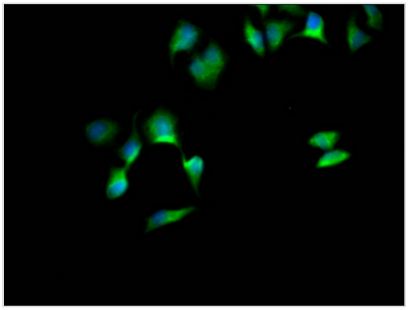
Western Blot
Positive WB detected in: Hela whole cell lysate, MCF-7 whole cell lysate, A549 whole cell lysate, HepG2 whole cell lysate
All lanes: SOX10 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 50, 32 kDa
Observed band size: 60 kDa



IHC image of CSB-RA592917A0HU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM 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.



IHC image of CSB-RA592917A0HU diluted at 1:100 and staining in paraffin-embedded human melanoma cancer performed on a Leica BondTM 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.



Immunofluorescence staining of Hela Cells with CSB-RA592917A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The SOX10 recombinant monoclonal antibody is developed using protein technology and DNA recombinant technology. The process involves immunizing mice with a synthesized peptide derived from human SOX10 and then extracting the total RNA of spleen cells from the mice under aseptic conditions after a certain period of time. The cDNA is synthesized by RNA reverse transcription and used as a template for PCR amplification of the SOX10 antibody gene. The resulting gene is inserted into a vector and transfected into host cells for culture. The SOX10 recombinant monoclonal antibody is then purified from the cell culture supernatant using affinity chromatography and rigorously verified. This antibody can be used for detecting human SOX10 protein in ELISA, WB, IHC, and IF experiments.

The SOX10 protein is a transcription factor that plays an important role in the development of the neural crest, which gives rise to various cell types including neurons, glia, and melanocytes. SOX10 is also involved in the maintenance and differentiation of neural crest-derived cells in adults, particularly in the peripheral nervous system. Mutations in the SOX10 gene are associated with various genetic disorders, such as Waardenburg syndrome and Hirschsprung's disease.