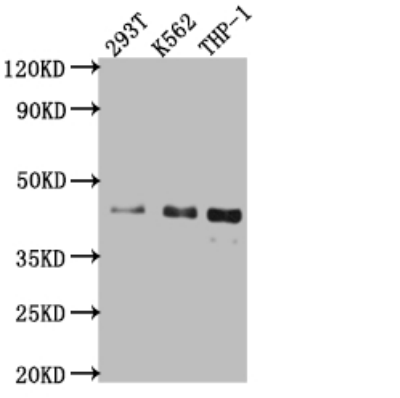
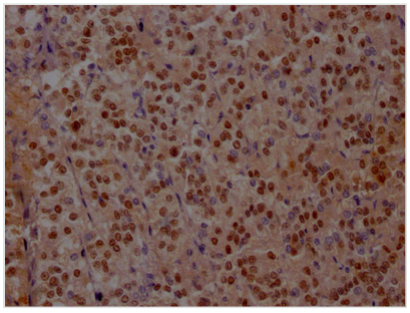
ISL1 Recombinant Monoclonal Antibody

Product Code	CSB-RA941933A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P61371
Immunogen	A synthesized peptide derived from human Islet1
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	DNA-binding transcriptional activator. Recognizes and binds to the consensus octamer binding site 5'-ATAATTAA-3' in promoter of target genes. Plays a fundamental role in the gene regulatory network essential for retinal ganglion cell (RGC) differentiation. Cooperates with the transcription factor POU4F2 to achieve maximal levels of expression of RGC target genes and RGC fate specification in the developing retina. Involved in the specification of motor neurons in cooperation with LHX3 and LDB1. Binds to insulin gene enhancer sequences.
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	Neuroscience; Cardiovascular; Developmental biology; Stem cells
Gene Names	ISL1
Clone No.	1A1

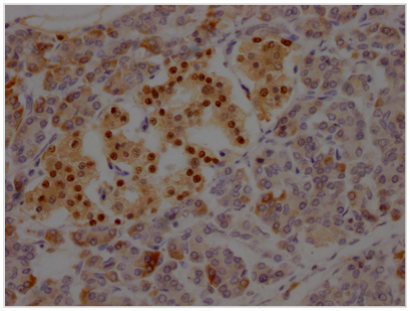
Image



Western Blot
Positive WB detected in: 293T whole cell lysate, K562 whole cell lysate, THP-1 whole cell lysate
All lanes: Islet1 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 40 kDa
Observed band size: 40 kDa



IHC image of CSB-RA941933A0HU diluted at 1:100 and staining in paraffin-embedded human adrenal gland 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-RA941933A0HU diluted at 1:100 and staining in paraffin-embedded human pancreatic 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.

Description

There are four key steps during the production of an ISL1 recombinant antibody. Sequencing the ISL1 monoclonal antibody gene, cloning the gene into a plasmid vector, introducing the recombinant vector into a host cell line, and purifying the ISL1 recombinant monoclonal antibody from the cell culture supernatant using affinity chromatography. The ISL1 monoclonal antibody is derived from ISL1 antibody-producing hybridomas, and a synthesized peptide derived from human ISL1 is used as an immunogen during the production of the ISL1 monoclonal antibody. This recombinant monoclonal antibody is suitable for use in ELISA, WB, and IHC applications to detect human ISL1 protein.

The ISL1 protein is a transcription factor that plays a critical role in the development of the nervous system and the heart. In the nervous system, ISL1 is involved in the differentiation and survival of motor neurons, sensory neurons, and sympathetic neurons. In the heart, ISL1 is expressed in cardiac progenitor cells and regulates their proliferation, differentiation, and survival. ISL1 is also important for the development of the pancreas and the adrenal gland. Abnormal expression of ISL1 has been associated with various developmental disorders and cancers.