

ISL1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16352c

Specification

Reactivity

ISL1 Antibody (Center) - Product Information

Application WB,E
Primary Accession P61371

Other Accession <u>P61374</u>, <u>P61372</u>, <u>P53405</u>, <u>P50211</u>,

NP_002193.2 Human, Mouse

Predicted Chicken, Zebrafish, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG

Calculated MW 39036 Antigen Region 156-185

ISL1 Antibody (Center) - Additional Information

Gene ID 3670

Other Names

Insulin gene enhancer protein ISL-1, Islet-1, ISL1

Target/Specificity

This ISL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 156-185 amino acids from the Central region of human ISL1.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ISL1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ISL1 Antibody (Center) - Protein Information

Name ISL1



Function 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 (By similarity). Binds to insulin gene enhancer sequences (By similarity). Essential for heart development. Marker of one progenitor cell population that give rise to the outflow tract, right ventricle, a subset of left ventricular cells, and a large number of atrial cells as well, its function is required for these progenitors to contribute to the heart. Controls the expression of FGF and BMP growth factors in this cell population and is required for proliferation and survival of cells within pharyngeal foregut endoderm and adjacent splanchnic mesoderm as well as for migration of cardiac progenitors into the heart (By similarity).

Cellular Location

Nucleus {ECO:0000250|UniProtKB:P61372}.

Tissue Location

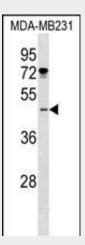
Expressed in subsets of neurons of the adrenal medulla and dorsal root ganglion, inner nuclear and ganglion cell layers in the retina, the pineal and some regions of the brain

ISL1 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

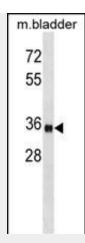
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ISL1 Antibody (Center) - Images



ISL1 Antibody (Center) (Cat. #AP16352c) western blot analysis in MDA-MB231 cell line lysates (35ug/lane). This demonstrates the ISL1 antibody detected the ISL1 protein (arrow).





ISL1 Antibody (Center) (Cat. #AP16352c) western blot analysis in mouse bladder tissue lysates (35ug/lane). This demonstrates the ISL1 antibody detected the ISL1 protein (arrow).

ISL1 Antibody (Center) - Background

ISL1 is a member of the LIM/homeodomain family of transcription factors. The encoded protein binds to the enhancer region of the insulin gene, among others, and may play an important role in regulating insulin gene expression. The encoded protein is central to the development of pancreatic cell lineages and may also be required for motor neuron generation. Mutations in this gene have been associated with maturity-onset diabetes of the young.

ISL1 Antibody (Center) - References

De Luca, A., et al. Clin. Genet. (2010) In press:
Davis, O.S., et al. Behav. Genet. (2010) In press:
Genead, R., et al. Stem Cell Res 4(1):69-76(2010)
Stevens, K.N., et al. PLoS ONE 5 (5), E10855 (2010):
Zhang, H., et al. J. Mol. Biol. 392(3):566-577(2009)