

ISL1 Antibody
Mouse Monoclonal Antibody to ISL1
Catalog # AO1276b**Specification**

ISL1 Antibody - Product Information

Application	WB, ICC, IF
Primary Accession	P61371
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	39036

Description

ISL1 (ISL1 transcription factor, LIM/homeodomain) is a member of the LIM/homeodomain family of transcription factors. It binds to the enhancer region of the insulin gene, among others, and may play an important role in regulating insulin gene expression. It is central to the development of pancreatic cell lineages and may also be required for motor neuron generation. Islet-1 expression defines cardiac progenitor cell populations and is required for normal cardiac development and asymmetry. Mutations in this gene have been associated with maturity-onset diabetes of the young.

Immunogen

Purified recombinant fragment of human ISL1 expressed in E. Coli.

ISL1 Antibody - Additional Information

Gene ID 3670

Other Names

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

Target/Specificity

Purified recombinant fragment of human ISL1 expressed in E. Coli.

Dilution

WB~~1:500~~2000

ICC~~1:200~~1000

IF~~1:200~1000.

Format

Ascitic fluid containing 0.03% sodium azide.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

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

ISL1 Antibody - 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

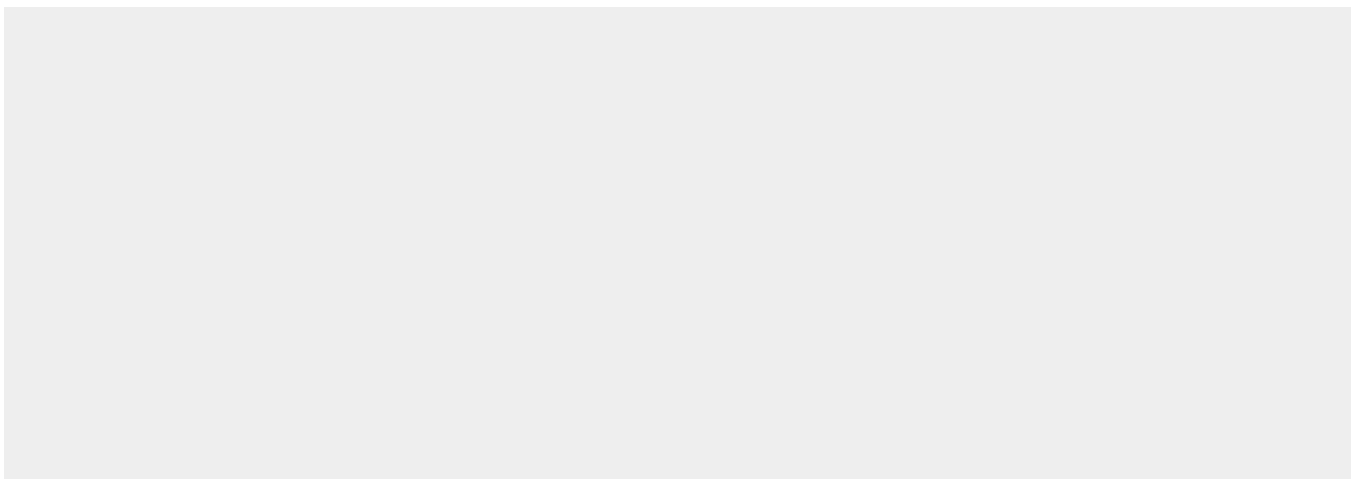
Expressed in subsets of neurons of the adrenal medulla and dorsal root ganglion, inner nuclear and ganglion cell layers in the retina, the pineal and some regions of the brain

ISL1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ISL1 Antibody - Images



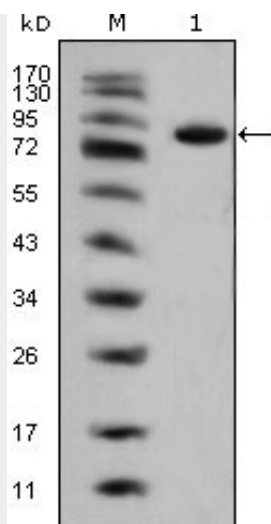


Figure 1: Western blot analysis using ISL1 mouse mAb against full-length ISL1 (aa1-349)-hlgGfC transfected HEK293 cell lysate(1).

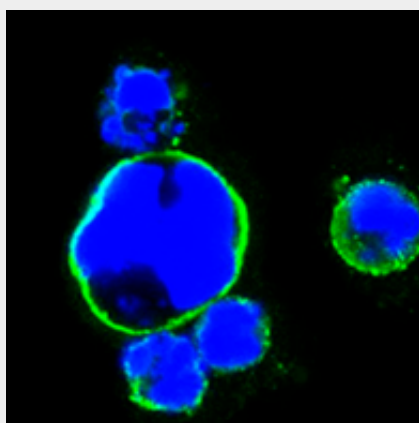


Figure 2: Confocal immunofluorescence analysis of HEK293 cells trasfected with full-length ISL1-hlgGfC using ISL1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

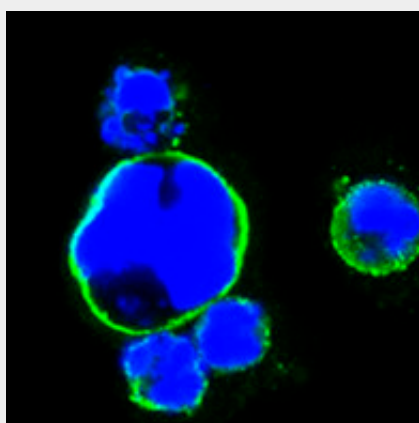


Figure 2: Confocal immunofluorescence analysis of HEK293 cells trasfected with full-length ISL1-hlgGfC using anti-ISL1 monoclonal antioby (green). Blue: DRAQ5 fluorescent DNA dye.

ISL1 Antibody - References

1. Cell. 1996 Jan 26;84(2):309-20.
2. J Neurosci. 2008 Mar 26;28(13):3291-7.