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Islet1 Antibody

Rabbit mAb
Catalog # AP92093

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P61371
Reactivity	Human
Clonality	Monoclonal
Other Names	Isl-1; ISLET1; Islet1; ISL 1; Insulin related protein;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	39036

Additional Information

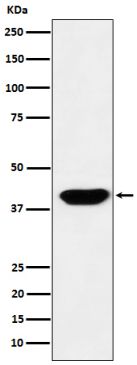
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Islet1
Description	ISL1 (ISL1 transcription factor, LIM/homeodomain) is a member of the LIM/homeodomain family of transcription factors. It 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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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

Images



Western blot analysis of Islet1 expression in HeLa cell lysate.