10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Islet 1 Picoband Antibody

Catalog # ABO10271

Product Information

Application	WB, IHC-P
Primary Accession	P61371
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Insulin gene enhancer protein ISL-1(ISL1) detection. Tested with WB, IHC-P in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3670
Other Names	Insulin gene enhancer protein ISL-1, Islet-1, ISL1
Calculated MW	39036
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Nucleus.
Tissue Specificity	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.
Source	Eukaryota
Protein Name	Insulin gene enhancer protein ISL-1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Islet 1 (118-161aa DEFALREDGLFCRADHDVVERASLGAGDPLSPLHPARPLQMAAE), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

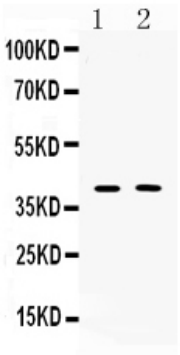
Protein Information

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

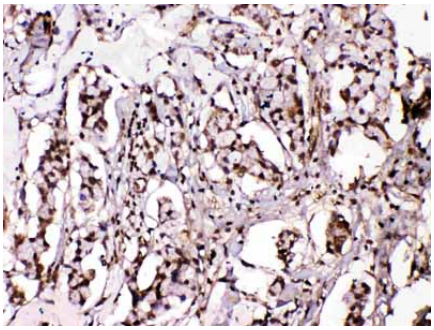
Background

Insulin gene enhancer protein ISL-1 is a protein that in humans is encoded by the isl1 gene. This gene encodes 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.

Images



Western blot analysis of Islet 1 expression in PC12 whole cell lysates (lane 1) and MCF-7 whole cell lysates (lane 2). Islet 1 at 39KD was detected using rabbit anti- Islet 1 Antigen Affinity purified polyclonal antibody (Catalog # ABO10271) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .



Islet 1 was detected in paraffin-embedded sections of human mammary cancer tissues using rabbit anti- Islet 1 Antigen Affinity purified polyclonal antibody (Catalog # ABO10271) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .