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Anti-Islet 1 Rabbit Monoclonal Antibody

Catalog # ABO13894

Specification

Anti-Islet 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, IF, ICC, IP**
Primary Accession	P61371
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-Islet 1 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, IP applications. This antibody reacts with Human, Mouse.

Anti-Islet 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 3670

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

Calculated MW
39036 MW KDa

Application Details
WB 1:1000-1:2000
ICC/IF 1:50-1:200
IP 1:50

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.

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human Islet 1

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated**

freeze-thaw cycles.

Anti-Islet 1 Rabbit Monoclonal 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

Anti-Islet 1 Rabbit Monoclonal 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 Cytomety
- Cell Culture

Anti-Islet 1 Rabbit Monoclonal Antibody - Images

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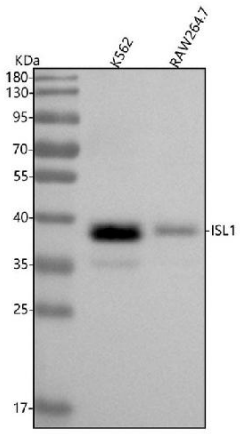

Figure 1. Western blot analysis of Islet 1 using anti-Islet 1 antibody (M02969).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human K562 whole cell lysates,
Lane 2: mouse RAW264.7 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Islet 1 antigen affinity purified monoclonal antibody (Catalog # M02969) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Islet 1 at approximately 39 kDa. The expected band size for Islet 1 is at 39 kDa.