10320 Camino Santa Fe, Suite G
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PDX1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1692a

Specification

PDX1 Antibody - Product Information

Application	**E, WB, FC**
Primary Accession	P52945
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**30.8kDa KDa**

Description
The protein encoded by this gene is a transcriptional activator of several genes, including insulin, somatostatin, glucokinase, islet amyloid polypeptide, and glucose transporter type 2. The encoded nuclear protein is involved in the early development of the pancreas and plays a major role in glucose-dependent regulation of insulin gene expression. Defects in this gene are a cause of pancreatic agenesis, which can lead to early-onset insulin-dependent diabetes mellitus (NIDDM), as well as maturity onset diabetes of the young type 4 (MODY4).

Immunogen
Purified recombinant fragment of human PDX1 expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

PDX1 Antibody - Additional Information

Gene ID 3651

Other Names
Pancreas/duodenum homeobox protein 1, PDX-1, Glucose-sensitive factor, GSF, Insulin promoter factor 1, IPF-1, Insulin upstream factor 1, IUF-1, Islet/duodenum homeobox-1, IDX-1, Somatostatin-transactivating factor 1, STF-1, PDX1, IPF1, STF1

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400

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
PDX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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PDX1 Antibody - Protein Information

Name PDX1

Synonyms IPF1, STF1

Function
Activates insulin, somatostatin, glucokinase, islet amyloid polypeptide and glucose transporter type 2 gene transcription. Particularly involved in glucose-dependent regulation of insulin gene transcription. As part of a PDX1:PBX1b:MEIS2b complex in pancreatic acinar cells is involved in the transcriptional activation of the ELA1 enhancer; the complex binds to the enhancer B element and cooperates with the transcription factor 1 complex (PTF1) bound to the enhancer A element. Binds preferentially the DNA motif 5'-[CT]TAAT[TG]-3'. During development, specifies the early pancreatic epithelium, permitting its proliferation, branching and subsequent differentiation. At adult stage, required for maintaining the hormone-producing phenotype of the beta-cell.

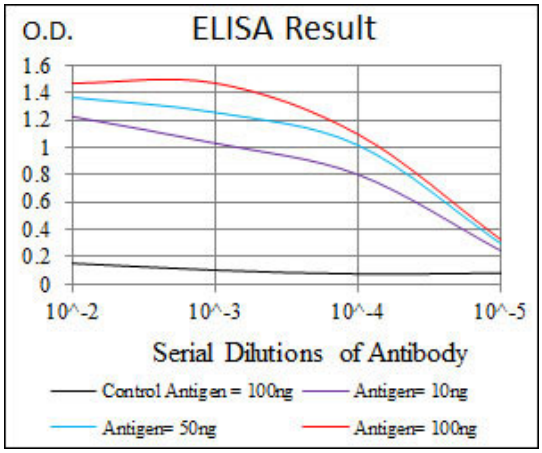
Cellular Location
Nucleus. Cytoplasm, cytosol.

Tissue Location
Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells)

PDX1 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



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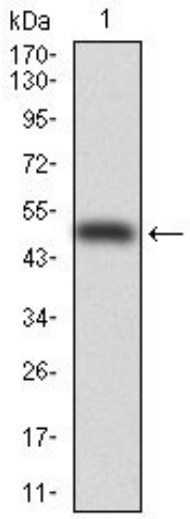

Figure 1: Western blot analysis using PDX1 mAb against human PDX1 (AA: 39-283) recombinant protein. (Expected MW is 52 kDa)

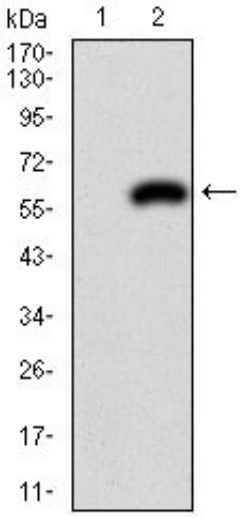

Figure 2: Western blot analysis using PDX1 mAb against HEK293 (1) and PDX1 (AA: 39-283)-hIgGFc transfected HEK293 (2) cell lysate.

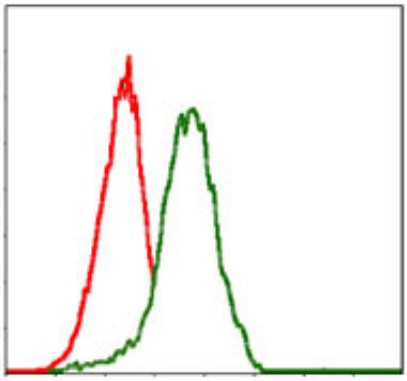

Figure 3: Flow cytometric analysis of Jurkat cells using PDX1 mouse mAb (green) and negative control (red).

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PDX1 Antibody - References

J Biol Chem. 2009 Dec 25;284(52):36482-90. Pancreatology. 2009;9(1-2):116-26.