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

PDX1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7740a

Specification

PDX1 Antibody (N-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P52945
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**30771**
Antigen Region	**40-69**

PDX1 Antibody (N-term) - 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

Target/Specificity
This PDX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 40-69 amino acids from the N-terminal region of human PDX1.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
PDX1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PDX1 Antibody (N-term) - 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.

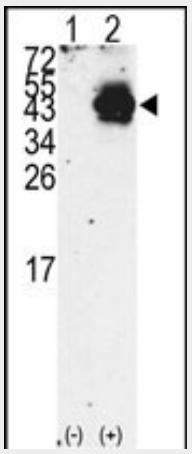
Tissue Location
Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells)

PDX1 Antibody (N-term) - 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

PDX1 Antibody (N-term) - Images



Western blot analysis of PDX1 (arrow) using rabbit polyclonal PDX1 Antibody (N-term) (RB10459). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PDX1 gene (Lane 2) (Origene Technologies).

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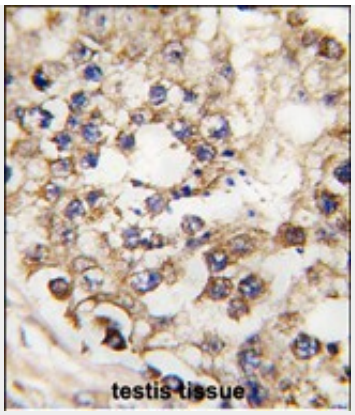

Formalin-fixed and paraffin-embedded human testis tissue reacted with PDX1 Antibody (N-term) (Cat.#AP7740a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PDX1 Antibody (N-term) - Background

PDX1 is a transcriptional activator of several genes, including insulin, somatostatin, glucokinase, islet amyloid polypeptide, and glucose transporter type 2. This 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 the gene encoding PDX1 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).

PDX1 Antibody (N-term) - References

Ma,J., Carcinogenesis 29 (7), 1327-1333 (2008)
Watada,H., Biochem. Biophys. Res. Commun. 229 (3), 746-751 (1996)