

PDX1 (PT1159R) PT™ Rabbit mAb

CatalogNo: YM9008 **Recombinant** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, IP, ELISA

MW

- 31kD (Calculated)
- 42kD (Observed)

Isotype

- IgG, Kappa

Recommended Dilution Ratios

IHC 1:100-1:500

WB 1:500-1:20000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

Basic Information

Clonality Monoclonal

Clone Number PT1159R

Immunogen Information

Specificity Endogenous

Target Information

Gene name PDX1

Protein Name Pancreas/duodenum homeobox protein 1

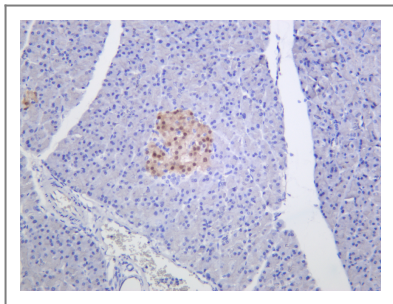
Organism	Gene ID	UniProt ID
Human	3651 ;	P52945 ;
Mouse	18609 ;	P52946 ;
Rat	29535 ;	P52947 ;

Cellular Localization Nucleus. Cytoplasm, cytosol .

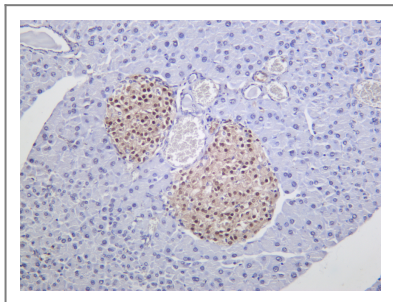
Tissue specificity Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).

Function Disease:Defects in PDX1 are a cause of pancreatic agenesis [MIM:260370]. This autosomal recessive disorder is characterized by absence or hypoplasia of pancreas, leading to early-onset insulin-dependent diabetes mellitus. This was found in a frameshift mutation that produces a truncated protein and results in a second initiation that produces a second protein that act as a dominant negative mutant.,Disease:Defects in PDX1 are the cause of maturity onset diabetes noninsulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type II.,Disease:Defects in PDX1 are the cause of maturity onset diabetes of the young type 4 (MODY4) [MIM:606392]; also symbolized MODY-4. MODY [MIM:606391] is a form of diabetes mellitus characterized by an autosomal dominant mode of inheritance, age of onset of 25 years or younger and a primary defect in insulin secretion.,Domain:The Antp-type hexapeptide mediates heterodimerization with PBX on a regulatory element of the somatostatin promoter.,Domain:The homeodomain, which contains the nuclear localization signal, not only mediates DNA-binding, but also acts as a protein-protein interaction domain for TCF3(E47), NEUROD1 and HMG-I(Y).,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. 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.,miscellaneous:According to PubMed:16141209, it may be methylated by SETD7 in vitro. However, the relevance of methylation is unsure in vivo.,PTM:Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration.,similarity:Belongs to the Antp homeobox family. IPF1/XIHbox-8 subfamily.,similarity:Contains 1 homeobox DNA-binding domain.,subunit:Interacts with the basic helix-loop-helix domains of TCF3(E47) and NEUROD1 and with HMG-I(Y). Interacts with SPOP (By similarity). Interacts with the methyltransferase SETD7.,tissue specificity:Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).,

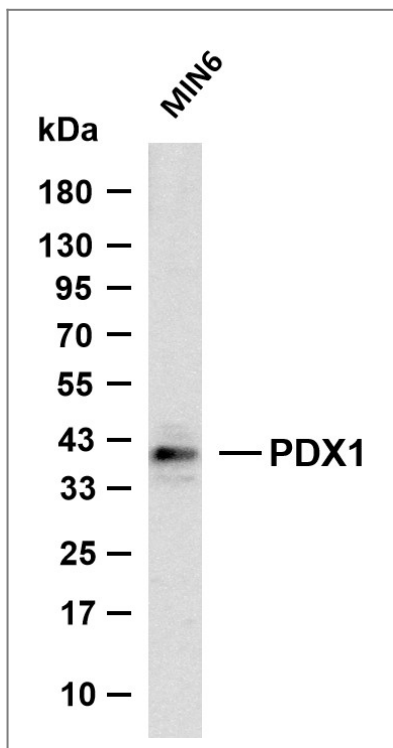
Validation Data



Rat pancreas was stained with anti-PDX1 (PT1159R) Rabbit antibody



Mouse pancreas was stained with anti-PDX1 (PT1159R) Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PDX1 (PT1159R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: MIN6 Predicted band size: 31kDa Observed band size: 42kDa

Contact information

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Please scan the QR code to access additional product information:
PDX1 (PT1159R)
PT™ Rabbit mAb

