abcam

Product datasheet

Anti-PDX1 antibody - C-terminal ab72324

1 Image

Overview

Product name	Anti-PDX1 antibody - C-terminal
Description	Rabbit polyclonal to PDX1 - C-terminal
Host species	Rabbit
Tested applications	**Suitable for:** WB, ELISA
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human PDX1 (C terminal) conjugated to keyhole limpet haemocyanin.
Positive control	HepG2 cell line lysate.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Ammonium Sulphate Precipitation
Purification notes	ab72324 is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab72324** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

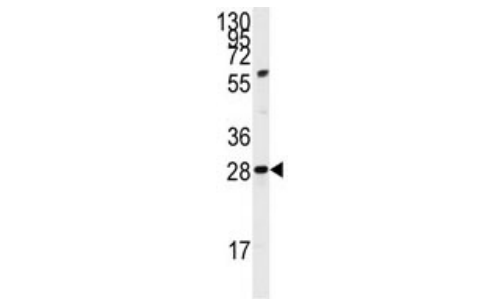
Application	Abreviews	Notes
WB		1/50 - 1/100. Detects a band of approximately 28 kDa (predicted molecular weight: 31 kDa).

Application	Abreviews	Notes
ELISA		1/1000.

Target

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.
Tissue specificity	Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).
Involvement in disease	Defects in PDX1 are a cause of pancreatic agenesis (PAC) [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. Defects in PDX1 are a cause of non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance. Defects in PDX1 are the cause of maturity-onset diabetes of the young type 4 (MODY4) [MIM:606392]; also symbolized MODY-4. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.
Sequence similarities	Belongs to the Antp homeobox family. IPF1/XlHbox-8 subfamily. Contains 1 homeobox DNA-binding domain.
Domain	The Antp-type hexapeptide mediates heterodimerization with PBX on a regulatory element of the somatostatin promoter. 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).
Post-translational modifications	Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration.
Cellular localization	Nucleus.

Images



Western blot - Anti-PDX1 antibody - C-terminal (ab72324)

Anti-PDX1 antibody - C-terminal (ab72324) at 1/60 dilution + HepG2 cell line lysate at 35 µg

Predicted band size: 31 kDa

Observed band size: 28 kDa

why is the actual band size different from the predicted?

Additional bands at: 60 kDa. We are unsure as to the identity of these extra bands.

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