

# Anti-PDX1 antibody [OT12A12] ab84987

[5 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Anti-PDX1 antibody [OT12A12]
<b>Description</b>	Mouse monoclonal [OT12A12] to PDX1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant full length protein, corresponding to amino acids 1-283 of human PDX1 expressed in <i>E. coli</i> .
<b>Positive control</b>	IHC-P: pancreas; carcinoma of pancreas WB: HEK293T cells transfected with PDX1; lysate from 293T cells transfected with PDX1 ICC/IF: HeLa cells transiently transfected by PDX1; HeLa cells
<b>General notes</b>	The clone number has been updated from 2A12 to OT12A12, both clone numbers name the same clone.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 1% BSA, 50% Glycerol, PBS
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Purified from TCS
<b>Clonality</b>	Monoclonal

Clone number	OT12A12
Isotype	IgG1

## Applications

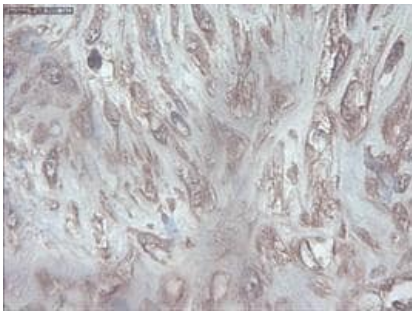
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab84987 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/20000. Predicted molecular weight: 31 kDa.
IHC-P		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

## Target

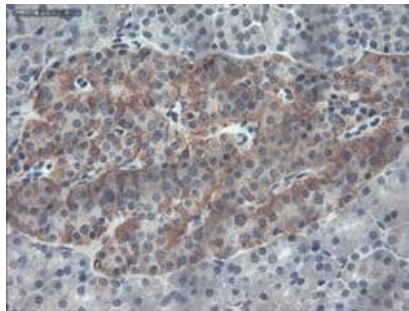
<b>Function</b>	Activates insulin, somatostatin, glucokinase, islet amyloid polypeptide and glucose transporter type 2 gene transcription. Particularly involved in glucose-dependent regulation of insulin gene transcription. Binds preferentially the DNA motif 5'-[CT]TAAT[ TG]-3'. During development, specifies 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.
<b>Tissue specificity</b>	Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).
<b>Involvement in disease</b>	<p>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.</p> <p>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.</p> <p>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.</p>
<b>Sequence similarities</b>	<p>Belongs to the Antp homeobox family. IPF1/XI Hbox-8 subfamily.</p> <p>Contains 1 homeobox DNA-binding domain.</p>
<b>Domain</b>	<p>The Antp-type hexapeptide mediates heterodimerization with PBX on a regulatory element of the somatostatin promoter.</p> <p>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).</p>
<b>Post-translational modifications</b>	Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration.

Images



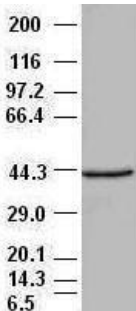
ab84987, staining PDX1 in paraffin embedded human pancreas carcinoma tissue by Immunohistochemistry.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDX1 antibody [OTI2A12] (ab84987)



ab84987, staining PDX1 in paraffin embedded human pancreas by Immunohistochemistry.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDX1 antibody [OTI2A12] (ab84987)

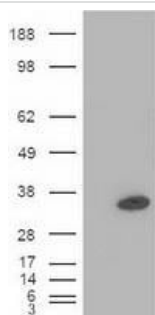


Anti-PDX1 antibody [OTI2A12] (ab84987) at 1/20000 dilution + lysate from HEK293T cells transfected with human PDX1 expression vector

**Predicted band size:** 31 kDa

Western blot - Anti-PDX1 antibody [OTI2A12] (ab84987)

HEK293T cell lysates were generated from transient transfection of the cDNA clone (RC200033)



Western blot - Anti-PDX1 antibody [OTI2A12] (ab84987)

**All lanes :** Anti-PDX1 antibody [OTI2A12] (ab84987)

**Lane 1 :** lysate from HEK293T cells transfected with an empty expression vector

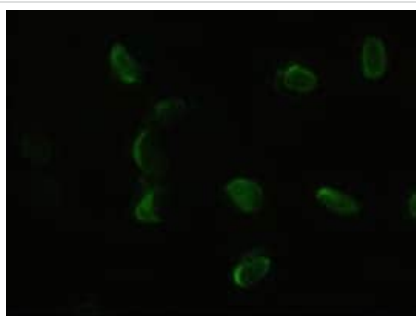
**Lane 2 :** lysate from HEK293T cells transfected with a human PDX1 expression vector

Lysates/proteins at 5 µg per lane.

**Predicted band size:** 31 kDa

**Observed band size:** 31 kDa

HEK293T cell lysates were generated from transient transfection of the cDNA clone (RC200033)



Immunocytochemistry/ Immunofluorescence - Anti-PDX1 antibody [OTI2A12] (ab84987)

ab84987, staining PDX1 by Immunofluorescence in HeLa cells transiently transfected with a vector expressing PDX1.

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