Pdx1 Antibody

#2437

Store at -20°C

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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New 08/09

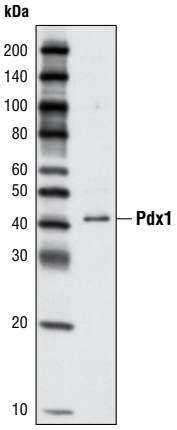
Entrez-Gene ID #3651
Swiss-Prot Acc. #P52945

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-IC, IF-F Endogenous	R, (H, M)	40 kDa	Rabbit**

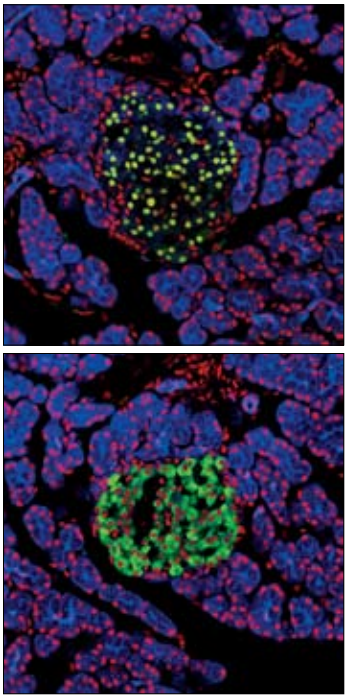
Background: The pancreatic duodenal homeobox gene-1 (Pdx1) is a transcription factor that contributes to pancreas development, pancreatic β-cell differentiation and mature β-cell function (1,2). It plays an essential role in the commitment of endoderm to a pancreatic and later β-cell phenotype (2,3). In the mature pancreas, Pdx1 expression is more restricted to the pancreatic β-cells (3), where it promotes the expression of genes important for β-cell functions such as insulin, glucokinase and Glut2 (4-6). Mutations of the corresponding Pdx1 gene may be associated with forms of diabetes and cases of pancreatic insufficiency (7).

Specificity/Sensitivity: Pdx1 Antibody detects endogenous levels of total Pdx1 protein.

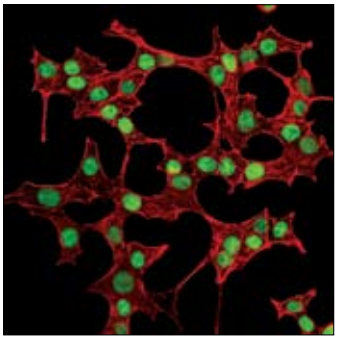
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) derived from human Pdx1. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from INS-1 cells using Pdx1 Antibody.



Confocal immunofluorescent analyis of normal rat pancreas using Pdx1 Antibody (green, upper) or Insulin (C27C9) Rabbit mAb #3014 (green, lower). Keratin filaments were labeled with Pan-Keratin (C11) Mouse mAb (Alexa Fluor® 647 Conjugate) #4528 (blue). Red = Propidium Iodide/ RNase (fluorescent DNA dye).



Confocal immunofluorescent analysis of INS-1 cells using Pdx1 ▶ Antibody (green). Actin filaments were labeled with DY-554 Phalloidin (red).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:100
Immunofluorescence (IF-F)	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Kaneto, H. et al. (2008) *Endocr J* 55, 235–52.
(2) Habener, J.F. et al. (2005) *Endocrinology* 146, 1025–34.
(3) Guz, Y. et al. (1995) *Development* 121, 11–8.
(4) Ohlsson, H. et al. (1993) *EMBO J* 12, 4251–9.
(5) Watada, H. et al. (1996) *Diabetes* 45, 1826–31.
(6) Waeber, G. et al. (1996) *Mol Endocrinol* 10, 1327–34.
(7) Cockburn, B.N. et al. (2004) *J Clin Endocrinol Metab* 89, 971–8.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.