Datasheet for ABIN967683

anti-PDX1 antibody

2 Images | 5 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	PDX1
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PDX1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), BioImaging (BI), Intracellular Staining (ICS)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human PDX-1 Recombinant Protein
Clone:	658A5
Isotype:	IgG1 kappa
Cross-Reactivity:	Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Triton is a trademark of the Dow Chemical Company.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	PDX1
Alternative Name:	PDX-1 (PDX1 Products)
Background:	The 658A5 monoclonal antibody binds PDX-1 or Pancreas/Duodenum Homeobox Protein-1 encoded by the PDX1 or IPF1 (Insulin Promoter Factor 1) gene. PDX-1 is a key regulator of pancreatic development and adult beta-cell function. Loss of PDX1 gene function in mice and humans results in pancreatic agenesis. PDX1 is also involved in endocrine precursor cell development by binding the DNA-binding transcription factor Neurogenin 3. PDX-1 positive cells have been obtained by the directed differentiation of human embryonic stem cells through a definitive endoderm lineage. Synonyms: PDX1, GSF, IPF-1, IPF1, IUF-1, IDX-1, STF-1
Molecular Weight:	40 kDa
Gene ID:	3651
Pathways:	Nuclear Receptor Transcription Pathway, Positive Regulation of Peptide Hormone Secretion, Steroid Hormone Mediated Signaling Pathway, Hormone Transport, Carbohydrate Homeostasis , Chromatin Binding, Maintenance of Protein Location

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C

Handling

Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Gannon, Ables, Crawford, Lowe, Offield, Magnuson, Wright: "pdx-1 function is specifically required in embryonic beta cells to generate appropriate numbers of endocrine cell types and maintain glucose homeostasis." in: **Developmental biology**, Vol. 314, Issue 2, pp. 406-17, (2008) (PubMed).

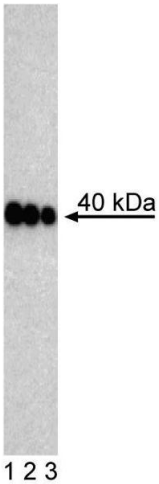
Babu, Deering, Mirmira: "A feat of metabolic proportions: Pdx1 orchestrates islet development and function in the maintenance of glucose homeostasis." in: **Molecular genetics and metabolism**, Vol. 92, Issue 1-2, pp. 43-55, (2007) (PubMed).

DAmour, Bang, Eliazer, Kelly, Agulnick, Smart, Moorman, Kroon, Carpenter, Baetge: "Production of pancreatic hormone-expressing endocrine cells from human embryonic stem cells." in: **Nature biotechnology**, Vol. 24, Issue 11, pp. 1392-401, (2006) (PubMed).

Gu, Dubauskaite, Melton: "Direct evidence for the pancreatic lineage: NGN3+ cells are islet progenitors and are distinct from duct progenitors." in: **Development (Cambridge, England)**, Vol. 129, Issue 10, pp. 2447-57, (2002) (PubMed).

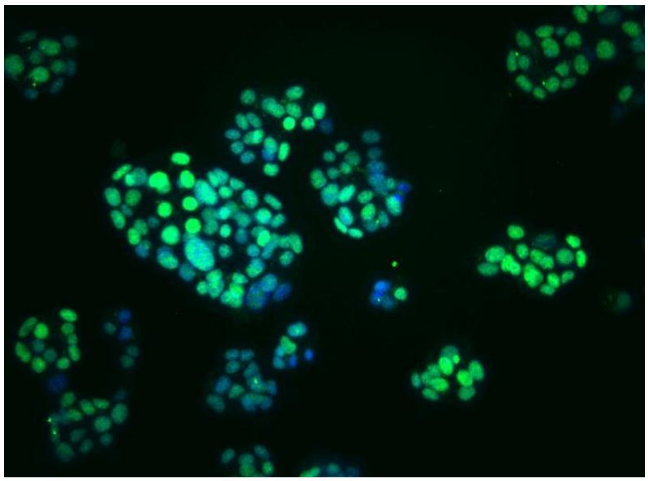
Ohlsson, Karlsson, Edlund: "IPF1, a homeodomain-containing transactivator of the insulin gene." in: **The EMBO journal**, Vol. 12, Issue 11, pp. 4251-9, (1993) (PubMed).

Images



Western Blotting

Image 1. Western Blot analysis of PDX-1 in mouse pancreatic tumor (insulinoma) cell lysate. Lysate from Beta-TC-6 cells (ATCC CRL-11506™) was probed with Purified Mouse anti-PDX-1 monoclonal antibody (ABIN967683) at titrations of 0.125 (lane 1), 0.06 (lane 2), and 0.03 myg/ml (lane 3). PDX-1 is identified as a band of 40 kDa.



Immunofluorescence

Image 2. Immunoflourescent staining of PDX-1 in mouse pancreatic tumor (insulinoma) cells. Beta-T-C6 cells (ATCC, CRL-11506™) were fixed with BD Cytofix™ Fixation Buffer, permeabilized with 0.1% Triton™ X-100 Buffer, and stained with Purified Mouse anti-PDX-1 monoclonal antibody (ABIN967683, pseudo-colored green) at 2.5 µg/mL. The second-step reagent was Alexa Fluor® 488 goat anti-mouse Ig (Life Technologies), and counter-staining was with DAPI (pseudo-colored blue). The images were captured on a BD Pathway™ 435 Cell Analyzer and merged using BD AttoVision™ Software.