

## Technical Data Sheet

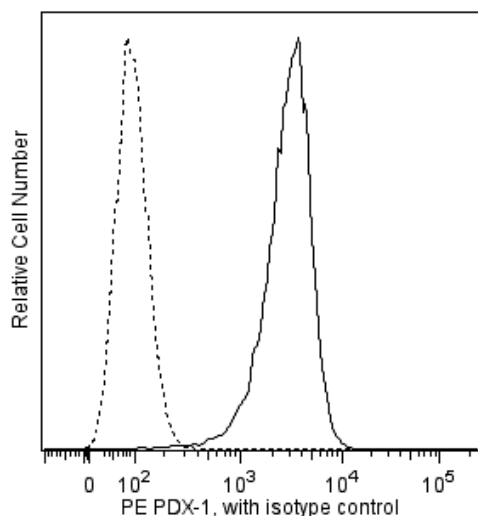
## PE Mouse anti-PDX-1

## Product Information

Material Number:	562161
Alternate Name:	PDX1, GSF, IPF-1, IPF1, IUF-1, IDX-1, STF-1
Entrez Gene ID:	3651
Size:	50 tests
Vol. per Test:	5 µl
Clone:	658A5
Immunogen:	Human PDX-1 Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Tested: Mouse Tested in Development: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

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.



**Flow cytometric analysis of PDX-1 in mouse pancreatic tumor (insulinoma) cells.** Beta-TC-6 (ATCC CRL-11506™) cells were fixed with BD Cytotfix™ fixation buffer (Cat. No. 554655) and permeabilized with BD Phosflow™ Perm buffer III (Cat. No. 558050). The cells were stained with either PE Mouse IgG1, κ isotype control (dashed line, Cat. No. 554680) or PE Mouse anti-PDX-1 monoclonal antibody (solid line, Cat. No. 562161) at matched concentrations. Flow cytometry was performed on a BD LSRFortessa™ flow cytometry system. This antibody has been found to be reactive with both mouse and human PDX-1, and it can also be used on fixed cells permeabilized with BD Phosflow™ Perm/Wash Buffer I (Cat. No. 557885).

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

## Application Notes

## Application

Intracellular staining (flow cytometry)	Routinely Tested
---	------------------

## Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554655	Fixation Buffer	100 ml	(none)
558050	Perm Buffer III	125 ml	(none)
557885	Perm/Wash Buffer I	125 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

## BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

For country-specific contact information, visit [bdbiosciences.com/how\\_to\\_order/](http://bdbiosciences.com/how_to_order/)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2011 BD



## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

## References

- Babu DA, Deering TG, Mirmira RG. A feat of metabolic proportions: Pdx1 orchestrates islet development and function in the maintenance of glucose homeostasis. *Mol Genet Metab.* 2007; 92(1-2):43-55. (Biology)
- D'Amour KA, Bang AG, Eliazar S, et al. Production of pancreatic hormone-expressing endocrine cells from human embryonic stem cells. *Nat Biotechnol.* 2006; 24(12):1481-1483. (Biology)
- Gannon M, Ables ET, Crawford L, et al. pdx-1 function is specifically required in embryonic beta cells to generate appropriate numbers of endocrine cell types and maintain glucose homeostasis. *Dev Biol.* 2008; 314(2):406-417. (Biology)
- Gu G, Dubauskaite J, Melton DA. Direct evidence for the pancreatic lineage: NGN3+ cells are islet progenitors and are distinct from duct progenitors. *Development.* 2002; 129(10):2447-2457. (Biology)
- Ohlsson H, Karlsson K, Edlund T. IPF1, a homeodomain-containing transactivator of the insulin gene. *EMBO J.* 1993; 12(11):4251-4259. (Biology)