PDX1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PDX1, Polyclonal Antibody
Full Product Name	PDX1 (Phospho-Ser61) Polyclonal Conjugated Antibody
Product Gene Name	anti-PDX1 antibody
Product Synonym Names	PDX1 (Phospho-Ser61) Conjugated Antibody; PDX1; Glucose-sensitive factor; Insulin upstream factor 1; IPF1; Insulin promoter factor 1; IPF-1; IUF-1; STF-1; GSF; IDX-1; Islet/duodenum homeobox-1; IUF1; MODY4; PDX-1
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	PDX1 (Phospho-Ser61) antibody detects endogenous levels of PDX1 only when phosphorylated at Ser61
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	30,771 Da
Chromosome Location	Chromosome: 13; NC_000013.10 (28494168..28500451). Location: 13q12.1
OMIM	125853
3D Structure	ModBase 3D Structure for P52945
Immunogen	A synthesized peptide derived from human PDX1 (Phospho-Ser61)
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-PDX1 antibody	Most Applications
Application Notes for anti-PDX1 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-PDX1 antibody	MBS9437974 is an antibody targeting PDX1. Also known as PDX1 (Phospho-Ser61) Polyclonal Conjugated Antibody. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-PDX1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDX1. It may not necessarily be applicable to this product.

NCBI GI #	4557673
NCBI GeneID	3651
NCBI Accession #	NP_000200.1
UniProt Primary Accession #	P52945
UniProt Secondary Accession #	O60594; Q5VYW2
UniProt Related Accession #	P52945
GenBank Nucleotide #	NM_000209.3
NCBI Official Full Name	pancreas/duodenum homeobox protein 1
NCBI Official Synonym Full Names	pancreatic and duodenal homeobox 1
NCBI Official Symbol	PDX1
NCBI Official Synonym Symbols	GSF; IPF1; IUF1; IDX-1; MODY4; PDX-1; STF-1
UniProt Protein Name	Pancreas/duodenum homeobox protein 1
UniProt Synonym Protein Names	Glucose-sensitive factor; GSF; Insulin promoter factor 1; IPF-1; Insulin upstream factor 1; IUF-1; Islet/duodenum homeobox-1; IDX-1; Somatostatin-transactivating factor 1
Protein Family	Pancreas/duodenum homeobox protein
UniProt Gene Name	PDX1
UniProt Synonym Gene Names	IPF1; STF1; PDX-1; GSF; IPF-1; IUF-1; IDX-1; STF-1
UniProt Entry Name	PDX1_HUMAN
NCBI Protein Information	pancreas/duodenum homeobox protein 1; IPF-1; IUF-1; glucose-sensitive factor; insulin upstream factor 1; islet/duodenum homeobox-1; somatostatin transcription factor 1; pancreatic-duodenal homeobox factor 1; somatostatin-transactivating factor 1; insulin
NCBI Summary for PDX1	The protein encoded by this gene is a transcriptional activator of several genes, including insulin, somatostatin, glucokinase, islet amyloid polypeptide, and glucose transporter type 2. The encoded nuclear protein is involved in the early development of the pancreas and plays a major role in glucose-dependent regulation of insulin gene expression. Defects in this gene are a cause of pancreatic agenesis, which can lead to early-onset insulin-dependent diabetes mellitus (NIDDM), as well as maturity onset diabetes of the young type 4 (MODY4). [provided by RefSeq, Jul 2008]

UniProt Comments for PDX1	PDX1: 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. Interacts with the basic helix-loop-helix domains of TCF3(E47) and NEUROD1 and with HMG-I(Y). Interacts with SPOP. Interacts with the methyltransferase SETD7. Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells). Belongs to the Antp homeobox family. IPF1/XlHbox-8 subfamily. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 13q12.1 Cellular Component: nucleus; cytosol Molecular Function: RNA polymerase II transcription factor activity, enhancer binding; protein heterodimerization activity; protein complex binding; chromatin binding; transcription factor binding; transcription factor activity Biological Process: transcription from RNA polymerase II promoter; response to nicotine; central nervous system development; response to glucocorticoid stimulus; exocrine pancreas development; negative regulation of transcription from RNA polymerase II promoter; glucose homeostasis; response to chlorate; response to vitamin; negative regulation of cell proliferation; detection of glucose; morphogenesis of embryonic epithelium; positive regulation of cell proliferation; response to wounding; response to iron(II) ion; positive regulation of DNA binding; response to drug; organ regeneration; smoothened signaling pathway; generation of precursor metabolites and energy; organ senescence; positive regulation of insulin secretion; glucose metabolic process; stem cell differentiation; liver development; endocrine pancreas development; organ morphogenesis; response to leucine; gut development; insulin secretion; response to cytokine stimulus; positive regulation of transcription from RNA polymerase II promoter; nitric oxide mediated signal transduction Disease: Maturity-onset Diabetes Of The Young, Type 4; Diabetes Mellitus, Permanent Neonatal; Pancreatic Agenesis 1; Diabetes Mellitus, Noninsulin-dependent
Research Articles on PDX1	**1.** PDX-1 is a therapeutic target for both hormonal symptoms and tumor volume in models of pancreatic cancer, insulinoma and islet neoplasia
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