

Rabbit PDX1 Polyclonal Antibody | anti-PDX1 antibody

Phospho-PDX1 (Ser61) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329827	Rabbit	Human Predicted Reactivity: Pig (88%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%), Xenopus (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PDX1; Polyclonal Antibody; Phospho-PDX1 (Ser61) Antibody; Glucose sensitive factor; Glucose-sensitive factor; GSF; IDX 1; IDX-1; IDX1; Insulin promoter factor 1; Insulin promoter factor 1 homeodomain transcription factor; Insulin upstream factor 1; IPF 1; IPF-1; IPF1; Islet/duodenum homeobox 1; Islet/duodenum homeobox-1; IUF 1; IUF-1; IUF1; MODY4; Pancreas/duodenum homeobox 1; Pancreas/duodenum homeobox protein 1; pancreatic and duodenal homeobox P; PDX 1; PDX-1; PDX1_HUMAN; Somatostatin transactivating factor 1; Somatostatin-transactivating factor 1; STF 1; STF-1; STF1; anti-PDX1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human Predicted Reactivity: Pig (88%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (88%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-PDX1 (Ser61) Antibody detects endogenous levels of PDX1 only when phosphorylated at Ser61. Tissue Specificity: Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PDX1 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PDX1 around the phosphorylation site of Ser61.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration. Phosphorylated by HIPK2 on Ser-268 upon glucose accumulation. This phosphorylation mediates subnuclear localization shifting. Phosphorylation by PASK may lead to translocation into the cytosol (By similarity).
Subunit Structure	Interacts with the basic helix-loop-helix domains of TCF3 (E47) and NEUROD1 and with HMG-I (Y). Interacts with SPOP (By similarity). Interacts with the methyltransferase SETD7. Part of a PDX1:PBX1b:MEIS2b complex.
Similarity	The Antp-type hexapeptide mediates heterodimerization with PBX on a regulatory element of the somatostatin promoter. 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). Belongs to the Antp homeobox family. IPF1/XIHXbox-8 subfamily.
Subcellular Location	Nucleus. Cytoplasm>Cytosol.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
Staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of PDX1 (Phospho-Ser61) using EGF treated A431 whole cell lysates. -/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-PDX1 antibody	Activates insulin, somatostatin, glucokinase, islet amyloid polypeptide and glucose transporter type 2 gene transcription. Particularly involved in glucose-dependent regulation of insulin gene transcription. As part of a PDX1:PBX1b:MEIS2b complex in pancreatic acinar cells is involved in the transcriptional activation of the ELA1 enhancer; the complex binds to the enhancer B element and cooperates with the transcription factor 1 complex (PTF1) bound to the enhancer A element. 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.
--	---

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557673
NCBI GeneID	3651
NCBI Accession #	NP_000200.1
NCBI GenBank Nucleotide #	NM_000209.3
UniProt Accession #	P52945; O60594; Q5VYW2
Molecular Weight	30,771 Da
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
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
UniProt Protein Name	Pancreas/duodenum homeobox protein 1
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

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.