# Recombinant Human PDX1

**Cat. No.** PDX1-29672TH **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant full length protein of Human PDX1 with proprietary tag; predicted MW 58.13 kDa, inclusive of tag. |
| **Species** | Human |
| **Source** | Wheat Germ |
| **ProteinLength** | 1-283 aa |
| **Description** | 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). |
| **Molecular Weight** | 58.130kDa inclusive of tags |
| **Tissue specificity** | Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells). |
| **Form** | Liquid |
| **Purity** | Proprietary Purification |

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| **Storage buffer** | pH: 8.00Constituents:0.79% Tris HCl, 0.3% Glutathione |
| **Storage** | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles. |
| **Sequences of amino acids** | MNGEEQYYAATQLYKDPCAFQRGPAPEFSASPPACLYMGR QPPPPPPHPFPGAL GALEQGSPPDISPYEVPPLADDPAVA HLHHHLPAQLALPHPPAGPFPEGAEPGVLE EPNRVQLPFP WMKSTKAHAWKGQWAGGAYAAEPEENKRTRTAYTRAQLLE LEKE FLFNKYISRPRRVELAVMLNLTERHIKIWFQNRRMK WKKEEDKKRGGGTAVGGGG VAEPEQDCAVTSGEELLALPP PPPPGGAVPPAAPVAAREGRLPPGLSASPQPSSV APRRPQ EPR |
| **Sequence Similarities** | Belongs to the Antp homeobox family. IPF1/XlHbox-8 subfamily.Contains 1 homeobox DNA-binding domain. |

## GENE INFORMATION

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| **Gene Name** | PDX1 pancreatic and duodenal homeobox 1 [ Homo sapiens ] |
| **Official Symbol** | PDX1 |
| **Synonyms** | PDX1; pancreatic and duodenal homeobox 1; insulin promoter factor 1, homeodomain transcription factor , IPF1; pancreas/duodenum homeobox protein 1; IDX 1; MODY4; PDX 1; somatostatin transcription factor 1; STF 1; |
| **Gene ID** | 3651 |
| **mRNA Refseq** | NM_000209 |
| **Protein Refseq** | NP_000200 |

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| **MIM** | 600733 |
| **Uniprot ID** | P52945 |
| **Chromosome Location** | 13q12.1 |
| **Pathway** | Developmental Biology, organism-specific biosystem; Diabetes pathways, organism-specific biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem; Insulin Synthesis and Processing, organism-specific biosystem; Maturity onset diabetes of the young, organism-specific biosystem; |
| **Function** | chromatin binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity; |

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