abcam

Product datasheet

Recombinant Human PDX1 protein ab114175

画像数1

製品の詳細

製品名 Recombinant Human PDX1 protein

発現系 Wheat germ アクセッション番号 P52945

タンパク質長

Full length protein

Animal free No

由来 Recombinant

生物種 Human

配列 MNGEEQYYAATQLYKDPCAFQRGPAPEFSASPPACLYMGRQP

PPPPPHPF

PGALGALEQGSPPDISPYEVPPLADDPAVAHLHHHLPAQLAL

PHPPAGPF

PEGAEPGVLEEPNRVQLPFPWMKSTKAHAWKGQWAGGAYAAE

PEENKRTR

TAYTRAQLLELEKEFLFNKYISRPRRVELAVMLNLTERHIKI

WFQNRRMK

WKKEEDKKRGGGTAVGGGGVAEPEQDCAVTSGEELLALPPPP PPGGAVPP AAPVAAREGRLPPGLSASPQPSSVAPRRPQEPR

予測される分子量 58 kDa including tags

領域 1 to 283

特性

Our Abpromise guarantee covers the use of ab114175 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション SDS-PAGE

Western blot

ELISA

製品の状態 Liquid

前処理および保存

保存方法および安定性

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 8.00

Constituents: 0.3% Glutathione, 0.79% Tris HCI

関連情報

機能

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.

組織特異性

Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).

関連疾患

Defects in PDX1 are a cause of pancreatic agenesis (PAC) [MIM:260370]. This autosomal recessive disorder is characterized by absence or hypoplasia of pancreas, leading to early-onset insulin-dependent diabetes mellitus. This was found in a frameshift mutation that produces a truncated protein and results in a second initiation that produces a second protein that act as a dominant negative mutant.

Defects in PDX1 are a cause of non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.

Defects in PDX1 are the cause of maturity-onset diabetes of the young type 4 (MODY4) [MIM:606392]; also symbolized MODY-4. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.

配列類似性

Belongs to the Antp homeobox family. IPF1/XIHbox-8 subfamily.

Contains 1 homeobox DNA-binding domain.

ドメイン

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).

翻訳後修飾

Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration.

細胞内局在

Nucleus.

画像

175 – 80 – 58 – 46 – 30 – 25 – 17 – SDS-PAGE - Recombinant Human PDX1 protein (ab114175)

ab114175 on a 12.5% SDS-PAGE Stained with Coomassie Blue.

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