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Phospho-IPF(T11) Antibody Blocking peptide

Synthetic peptide
Catalog # BP3617a

Specification

Phospho-IPF(T11) Antibody Blocking peptide - Product Information

Primary Accession P52945

Phospho-IPF(T11) Antibody Blocking peptide - Additional Information

Gene ID 3651

Other Names
Pancreas/duodenum homeobox protein 1, PDX-1, 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, STF-1, PDX1, IPF1, STF1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP3617a was selected from the T11 region of human Phospho-IPF. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-IPF(T11) Antibody Blocking peptide - Protein Information

Name PDX1

Synonyms IPF1, STF1

Function
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.

Cellular Location
Nucleus. Cytoplasm, cytosol.

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

Phospho-IPF(T11) Antibody Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Phospho-IPF(T11) Antibody Blocking peptide - Images

Phospho-IPF(T11) Antibody Blocking peptide - Background

PDX1 is a transcriptional activator of several genes, including insulin, somatostatin, glucokinase, islet amyloid polypeptide, and glucose transporter type 2. The 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 its 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).

Phospho-IPF(T11) Antibody Blocking peptide - References

Lebrun P, Montminy MR, Van Obberghen E (2005) J Biol Chem 280, 38203-10