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IPF Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5450

Product Information

Application	IF, WB
Primary Accession	P52945
Reactivity	Mouse, Rat, Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30771
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	3651
Antigen Region	186-215
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
Dilution	IF~~1:10~50 WB~~1:1000
Target/Specificity	This IPF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 186-215 amino acids from the C-terminal region of human IPF.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IPF Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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)

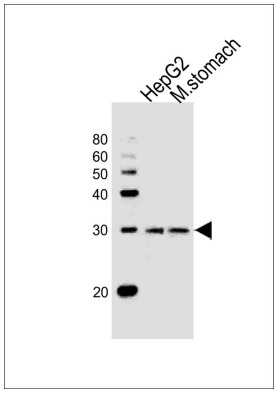
Background

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

References

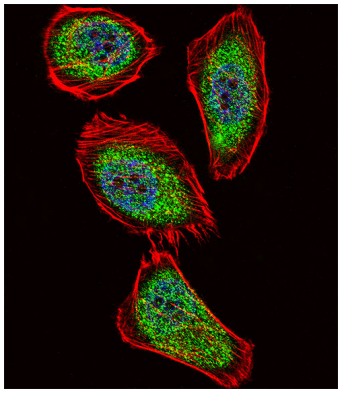
Ma,J., Carcinogenesis 29 (7), 1327-1333 (2008)
Watada,H., Biochem. Biophys. Res. Commun. 229 (3), 746-751 (1996)

Images



All lanes : Anti-IPF Antibody (C-term) at 1:1000 dilution Lane 1: HepG2 whole cell lysates Lane 2: mouse stomach lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Fluorescent confocal image of U251 cell stained with IPF Antibody (C-term)(Cat#AW5450).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with IPF primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃). Nuclei were



counterstained with DAPI (blue) (10 µg/ml, 10 min). IPF immunoreactivity is localized to Cytoplasm and Nucleus significantly.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.