

Rabbit Anti-PTF1A antibody

SL11930R

Product Name PTF1A

Chinese Name 胰腺特异转录因子 PTF1A 抗体

Alias

PTF1-p48; bHLH transcription factor p48; bHLHa29; Class A basic helix-loop-helix protein 29; Class II bHLH protein PTF1A; Exocrine pancreas specific transcription factor p48; p48 DNA binding subunit of transcription factor PTF1; p48 DNA-binding subunit of transcription factor PTF1; Pancreas specific transcription factor 1a; Pancreas transcription factor 1 subunit alpha; Pancreas-specific transcription factor 1a; PTF 1A; PTF1 p48; PTF1-p48; Ptf1a; PTF1A_HUMAN; PTF1P48.

Research Area

Tumour Cell biology transcriptional regulatory factor Epigenetics

Immunogen Species

Rabbit

Clonality

Polyclonal

React Species

Mouse,Rat(predicted:Human,Pig,Cow)

Applications

IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight

35kDa

Cellular localization

The nucleus cytoplasmic

Form

Liquid

Concentration

1mg/ml

immunogen

KLH conjugated synthetic peptide derived from human PTF1A: 165-260/328

Lsotype

IgG

Purification

affinity purified by Protein A

Buffer Solution

1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

PTF1 is a pancreas-specific protein that functions as a component of the trimeric pancreas transcription factor 1 (PTF1) complex. Localizing to the nucleus, PTF1 contains one basic helix-loop-helix (bHLH) domain and is believed to play an important role in mammalian pancreatic development, functioning as a transcription factor that regulates the specification of all three pancreatic cell types. PTF1 interacts with RBP-Jx and, together, they cooperate in regulating the expression of PDX-1 (pancreas/duodenum homeobox protein 1), a key regulator of pancreatic islet development and insulin gene transcription in beta-cells. Loss of functional PTF1 can cause pancreatic progenitors to take on the normal fates of duodenal epithelia. Mutations in the gene encoding PTF1 lead to diabetes mellitus and cerebellar hypoplasia/agenesis, suggesting that PTF1 also plays an important role in cerebellar neurogenesis.

Function:

Transcriptional activator. Binds to the E-box consensus sequence 5'-CANNTG-3'. Plays an important role in determining whether cells allocated to the pancreatic buds continue towards pancreatic organogenesis or revert back to duodenal fates. May be involved in the maintenance of exocrine pancreas-specific gene expression including ELA1 and amylase. Required for the formation of pancreatic acinar and ductal cells. Plays an important role in cerebellar development.

**Product
Detail**

Subcellular Location:

Nucleus. Cytoplasm. In chronic pancreatitis associated with pancreas cancer preferentially accumulates in the cytoplasm of acinar/ductular complexes. In the cytoplasm loses its ability to form the PTF1 complex.

Tissue Specificity:

Pancreas-specific (at protein level). Loss of expression is seen in ductal type pancreas cancers.

DISEASE:

Defects in PTF1A are the cause of diabetes mellitus and cerebellar hypoplasia/agenesis (DMCH) [MIM:609069].

Similarity:

Contains 1 basic helix-loop-helix (bHLH) domain.

SWISS:

Q7RTS3

Gene ID:

256297

Database links:

[Entrez Gene: 256297](#) Human

[Entrez Gene: 19213](#) Mouse

[Entrez Gene: 117034](#) Rat

[Omim: 607194](#) Human

[SwissProt: Q7RTS3](#) Human

[SwissProt: Q9QX98](#) Mouse

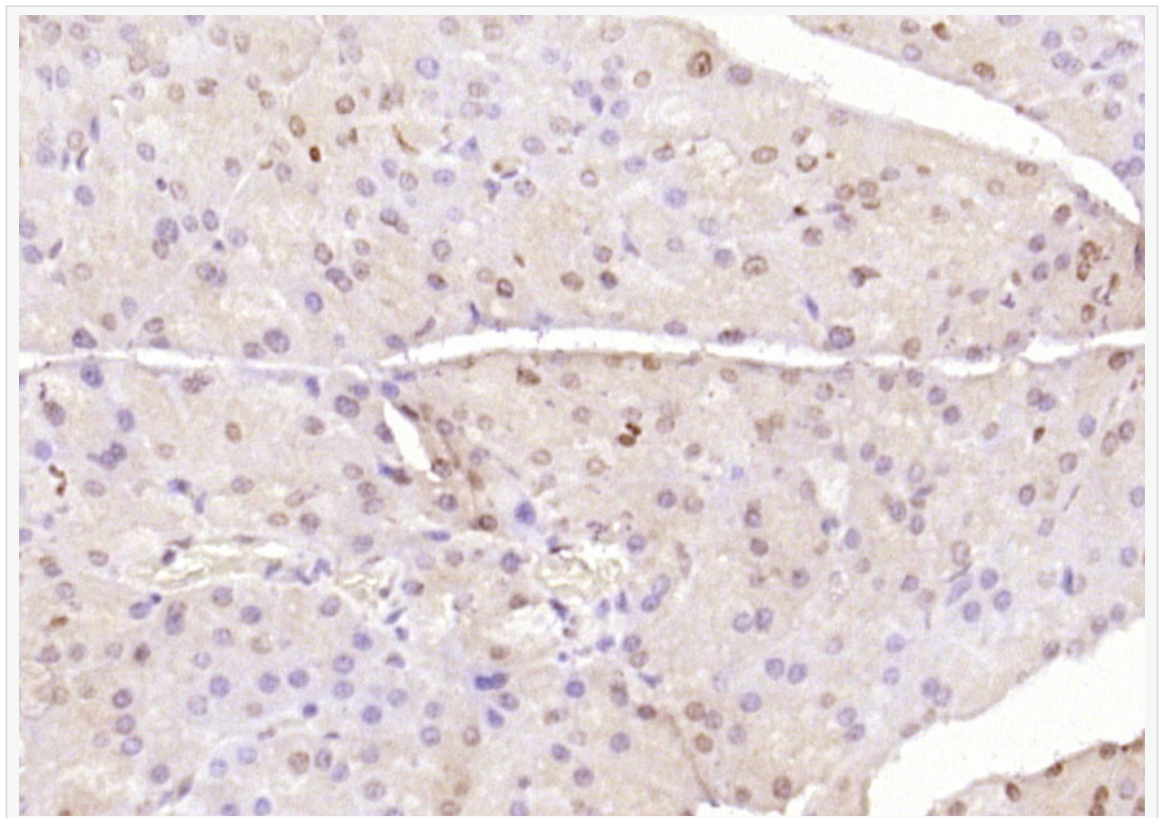
[SwissProt: Q64305](#) Rat

[Unigene: 351503](#) Human

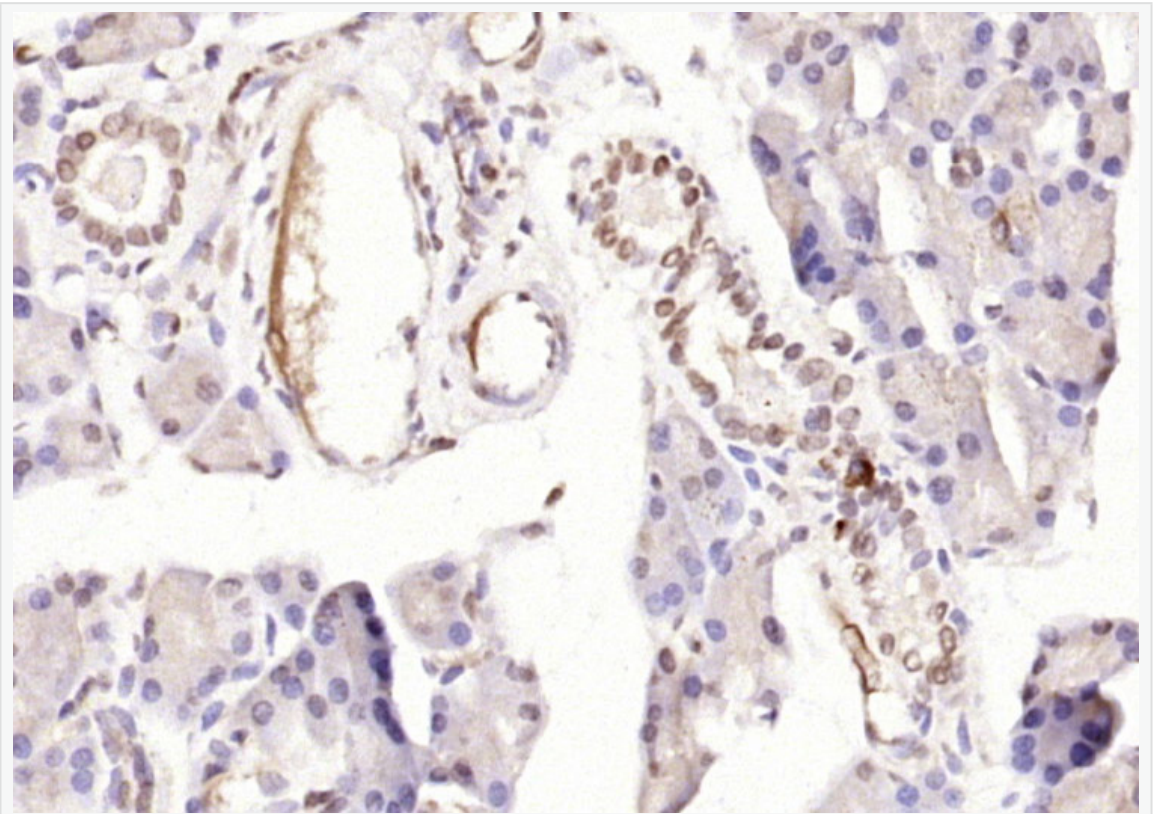
[Unigene: 69647](#) Mouse

[Unigene: 10536](#) Rat

**Product
Picture**



Paraformaldehyde-fixed, paraffin embedded (mouse pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PTF1A) Polyclonal Antibody, Unconjugated (SL11930R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for



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30min; Antibody incubation with (PTF1A) Polyclonal Antibody, Unconjugated (SL11930R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.