

Ptf1a Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2706A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q7RTS3
Other Accession	Q64305
Reactivity	Human, Mouse, Rat
Predicted	Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB10418
Calculated MW	34970
Antigen Region	12-43

Additional Information

Gene ID	256297
Other Names	Pancreas transcription factor 1 subunit alpha, Class A basic helix-loop-helix protein 29, bHLHa29, Pancreas-specific transcription factor 1a, bHLH transcription factor p48, p48 DNA-binding subunit of transcription factor PTF1, PTF1-p48, PTF1A, BHLHA29, PTF1P48
Target/Specificity	This Ptf1a antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 12-43 amino acids from the N-terminal region of human Ptf1a.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	Ptf1a Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PTF1A
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Synonyms	BHLHA29, PTF1P48
Function	Transcription factor implicated in the cell fate determination in various organs. Binds to the E-box consensus sequence 5'-CANNTG-3'. Plays a role in early and late pancreas development and differentiation. Important for 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. Directly regulated by FOXN4 and RORC during retinal development, FOXN4-PTF1A pathway plays a central role in directing the differentiation of retinal progenitors towards horizontal and amacrine fates.
Cellular Location	Nucleus {ECO:0000255 PROSITE-ProRule:PRU00981}. Cytoplasm. Note=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 (By similarity).
Tissue Location	Pancreas-specific (at protein level). Loss of expression is seen in ductal type pancreas cancers

Background

Ptf1a is a component of the pancreas transcription factor 1 complex (PTF1) and is known to have a role in mammalian pancreatic development. The protein plays a role in determining whether cells allocated to the pancreatic buds continue towards pancreatic organogenesis or revert back to duodenal fates. This protein is thought to be involved in the maintenance of exocrine pancreas-specific gene expression including elastase 1 and amylase. Mutations in the Ptf1a gene cause cerebellar agenesis and loss of expression is seen in ductal type pancreas cancers.

References

Yamada,M., J. Neurosci. 27 (41), 10924-10934 (2007)
 Beres,T.M., Mol. Cell. Biol. 26 (1), 117-130 (2006)
 Sellick,G.S., Nat. Genet. 36 (12), 1301-1305 (2004)

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