10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-PTF1A / PFT1-P48 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1879a

Specification

Goat Anti-PTF1A / PFT1-P48 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q7RTS3
Other Accession	NP_835455, 256297, 19213 (mouse), 117034 (rat)
Reactivity	**Human, Mouse**
Predicted	**Rat, Zebrafish, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**34970**

Goat Anti-PTF1A / PFT1-P48 Antibody - 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

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-PTF1A / PFT1-P48 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-PTF1A / PFT1-P48 Antibody - Protein Information

Name PTF1A

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

Goat Anti-PTF1A / PFT1-P48 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-PTF1A / PFT1-P48 Antibody - Images

AF1879a (0.5 µg/ml) staining of Human Brain (Cer) lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-PTF1A / PFT1-P48 Antibody - Background

This gene encodes a protein that 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. The protein is thought to be involved in the maintenance of exocrine pancreas-specific gene expression including elastase 1 and amylase. Mutations in this gene cause cerebellar agenesis and loss of expression is seen in ductal type pancreas cancers.

Goat Anti-PTF1A / PFT1-P48 Antibody - References

Multiple transcriptional mechanisms control Ptf1a levels during neural development including autoregulation by the PTF1-J complex. Meredith DM, et al. J Neurosci, 2009 Sep 9. PMID 19741120.
A Turkish newborn infant with cerebellar agenesis/neonatal diabetes mellitus and PTF1A mutation. Tutak E, et al. Genet Couns, 2009. PMID 19650412.
p/CAF modulates the activity of the transcription factor p48/Ptf1a involved in pancreatic acinar differentiation. Rodolosse A, et al. Biochem J, 2009 Mar 1. PMID 18834332.
Origin of climbing fiber neurons and their developmental dependence on Ptf1a. Yamada M, et al. J Neurosci, 2007 Oct 10. PMID 17928434.
PTF1 is an organ-specific and Notch-independent basic helix-loop-helix complex containing the mammalian Suppressor of Hairless (RBP-J) or its paralogue, RBP-L. Beres TM, et al. Mol Cell Biol, 2006 Jan. PMID 16354684.