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Ptf1a Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP2706b

Specification

Ptf1a Blocking Peptide (C-term) - Product Information

Primary Accession Q7RTS3

Ptf1a Blocking Peptide (C-term) - 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
The synthetic peptide sequence is selected from aa 301~317 of HUMAN PTF1A

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.

Ptf1a Blocking Peptide (C-term) - Protein Information

Name PTF1A

Synonyms BHLHA29, PTF1P48

Ptf1a Blocking Peptide (C-term) - 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.

Ptf1a Blocking Peptide (C-term) - 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)

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

Ptf1a Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides