

# PTPMT1 Polyclonal antibody

Catalog Number: 11493-1-AP

Featured Product

4 Publications

## Basic Information

## Catalog Number:

11493-1-AP

## Size:

600 µg/ml

## Source:

Rabbit

## Isotype:

IgG

## Immunogen Catalog Number:

AG2063

## GenBank Accession Number:

BC020242

## GeneID (NCBI):

114971

## UNIPROT ID:

Q8WUK0

## Full Name:

protein tyrosine phosphatase,  
mitochondrial 1

## Calculated MW:

201 aa, 23 kDa

## Observed MW:

21-23 kDa

## Purification Method:

Antigen affinity purification

## Recommended Dilutions:

WB 1:200-1:1000

IHC 1:20-1:200

## Applications

## Tested Applications:

IHC, WB, ELISA

## Cited Applications:

WB, IF, IHC

## Species Specificity:

human, mouse, rat

## Cited Species:

human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Positive Controls:

WB : mouse pancreas tissue, rat pancreas tissue

IHC : human pancreas cancer tissue,

## Background Information

Protein Tyrosine Phosphatase localized to the Mitochondrial 1 (PTPMT1) is a highly conserved, dual-specific phosphatase that resides on the matrix-facing side of the inner mitochondrial membrane (IMM). PTPMT1 is a mitochondrial phosphatase and a vital regulator of mitochondrial activities. Current work points to roles for PTPMT1 in the regulation of mitochondrial respiration, dynamics, and ultrastructure through the modulation of pyruvate importation, the tuning of TCA cycle activity, and the synthesis of cardiolipin. PTPMT1 is highly expressed in pancreatic b cells, whose mitochondria have the important function of coupling glucose metabolism to the secretion of insulin. (PMID: 16337125, PMID: 16061174, PMID: 33335799)

## Notable Publications

| Author            | Pubmed ID | Journal                   | Application |
|-------------------|-----------|---------------------------|-------------|
| Macus Hao-Ran Bao | 33503428  | Cell Rep                  | WB, IHC     |
| Yanan Wang        | 36575176  | Cell Death Dis            | WB          |
| Jing Yi           | 37154493  | Am J Physiol Cell Physiol | WB          |

## Storage

## Storage:

Store at -20°C. Stable for one year after shipment.

## Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

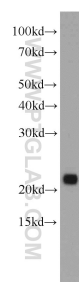
For technical support and original validation data for this product please contact:

T: 4006900926

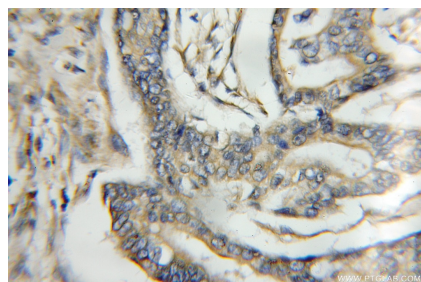
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## Selected Validation Data



mouse pancreas tissue were subjected to SDS PAGE followed by western blot with 11493-1-AP (PTPMT1 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human pancreas cancer using 11493-1-AP (PTPMT1 antibody) at dilution of 1:50 (under 10x lens).