

IMPDH1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14691a

Product Information

Application WB, IHC-P, E **Primary Accession** P20839

Other Accession D3ZLZ7, P50096, O6GMG5, A0INA3, NP 001136045.1, NP 899066.1,

NP 001096075.1

Reactivity Human

Predicted Bovine, Zebrafish, Mouse, Rat

HostRabbitClonalityPolyclonalIsotypeRabbit IgGClone NamesRB34615Calculated MW55406Antigen Region84-113

Additional Information

Gene ID 3614

Other Names Inosine-5'-monophosphate dehydrogenase 1

{ECO:0000255|HAMAP-Rule:MF 03156}, IMP dehydrogenase 1

{ECO:0000255|HAMAP-Rule:MF_03156}, IMPD 1 {ECO:0000255|HAMAP-Rule:MF_03156}, IMPDH 1 {ECO:0000255|HAMAP-Rule:MF_03156}, 111205

{ECO:0000255 | HAMAP-Rule:MF_03156}, IMPDH-I, IMPDH1

{ECO:0000255 | HAMAP-Rule:MF_03156}, IMPD1

Target/Specificity This IMPDH1 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 84-113 amino acids from the

N-terminal region of human IMPDH1.

Dilution WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.

Format Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

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 IMPDH1 Antibody (N-term) is for research use only and not for use in

diagnostic or therapeutic procedures.

Protein Information

Name IMPDH1 {ECO:0000255 | HAMAP-Rule:MF 03156}

Synonyms IMPD1

Function Catalyzes the conversion of inosine 5'-phosphate (IMP) to xanthosine

5'-phosphate (XMP), the first committed and rate-limiting step in the de novo synthesis of guanine nucleotides, and therefore plays an important role in the

regulation of cell growth. Could also have a single-stranded nucleic

acid-binding activity and could play a role in RNA and/or DNA metabolism. It may also have a role in the development of malignancy and the growth

progression of some tumors.

Cellular Location Cytoplasm {ECO:0000255|HAMAP-Rule:MF 03156,

ECO:0000269 | PubMed:14766016 }. Nucleus

{ECO:0000255 | HAMAP-Rule:MF_03156, ECO:0000269 | PubMed:14766016}

Tissue Location IMP type I is the main species in normal leukocytes and type II predominates

over type I in the tumor

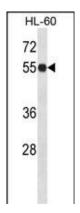
Background

The protein encoded by this gene acts as a homotetramer to regulate cell growth. The encoded protein is an enzyme that catalyzes the synthesis of xanthine monophosphate (XMP) from inosine-5'-monophosphate (IMP). This is the rate-limiting step in the de novo synthesis of guanine nucleotides. Defects in this gene are a cause of retinitis pigmentosa type 10 (RP10). Several transcript variants encoding different isoforms have been found for this gene.

References

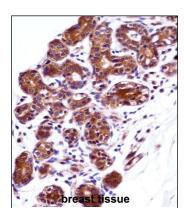
Ohmann, E.L., et al. Pediatr Transplant 14(7):891-895(2010) Gensburger, O., et al. Pharmacogenet. Genomics 20(9):537-543(2010) Kagaya, H., et al. Basic Clin. Pharmacol. Toxicol. 107(2):631-636(2010) Ohmann, E.L., et al. J. Heart Lung Transplant. 29(5):509-516(2010) Shumei, L., et al. Adv. Exp. Med. Biol. 664, 293-297 (2010):

Images



IMPDH1 Antibody (N-term) (Cat. #AP14691a) western blot analysis in HL-60 cell line lysates (35ug/lane). This demonstrates the IMPDH1 antibody detected the IMPDH1 protein (arrow).

IMPDH1 Antibody (N-term) (AP14691a)immunohistochemistry analysis in formalin fixed and paraffin embedded human breast tissue followed by peroxidase conjugation of the secondary



antibody and DAB staining. This data demonstrates the use of IMPDH1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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