

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 , Q6GMG5 , A0JNA3 , NP_001136045.1 , NP_899066.1 , NP_001096075.1
Reactivity	Human
Predicted	Bovine, Zebrafish, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34615
Calculated MW	55406
Antigen Region	84-113

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

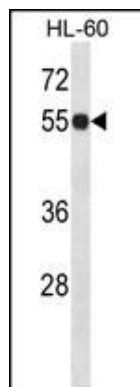
Background

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

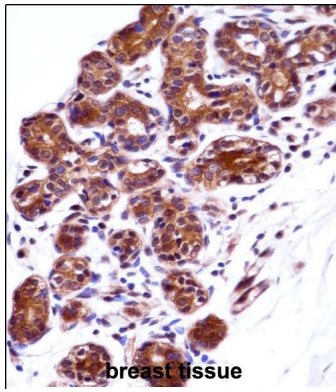
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Gensburger, O., et al. *Pharmacogenet. Genomics* 20(9):537-543(2010)
Kagaya, H., et al. *Basic Clin. Pharmacol. Toxicol.* 107(2):631-636(2010)
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Shumei, L., et al. *Adv. Exp. Med. Biol.* 664, 293-297 (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'.