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IMPDH1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13549b

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	P20839
Other Accession	D3ZLZ7, P50096, A0JNA3, NP_001136045.1, NP_001096075.1
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33810
Calculated MW	55406
Antigen Region	487-514

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 487-514 amino acids from the C-terminal region of human IMPDH1.
Dilution	WB~~1:1000 IF~~1:10~50 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 (C-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

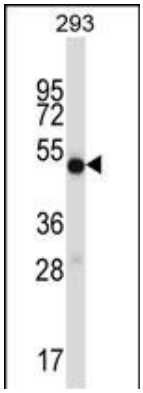
Background

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

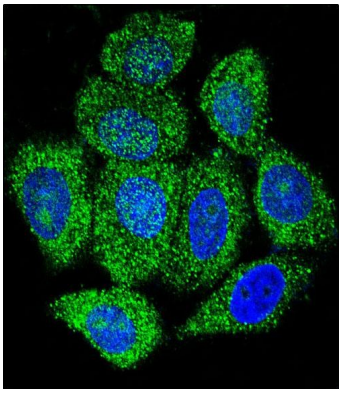
Ohmann, E.L., et al. Pediatr Transplant 14(7):891-895(2010) Gensburger, O., et al. Pharmacogenet. Genomics 20(9):537-543(2010) Kagaya, H., et al. Basic Clin. Pharmacol. Toxicol. 107(2):631-636(2010) Ohmann, E.L., et al. J. Heart Lung Transplant. 29(5):509-516(2010) Shumei, L., et al. Adv. Exp. Med. Biol.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

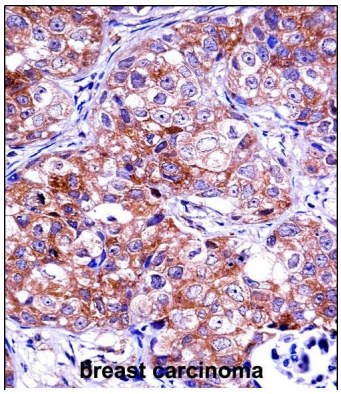
Images



IMPDH1 Antibody (C-term) (Cat. #AP13549b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the IMPDH1 antibody detected the IMPDH1 protein (arrow).

Confocal immunofluorescent analysis of IMPDH1 Antibody (C-term) (Cat#AP13549b) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).





IMPDH1 Antibody (C-term) (AP13549b)immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of IMPDH1 Antibody (C-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'.