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IMPDH1 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP13549b

Specification

IMPDH1 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P20839

IMPDH1 Antibody (C-term) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP13549b was selected from the C-term region of IMPDH1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

IMPDH1 Antibody (C-term) Blocking peptide - 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

IMPDH1 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

IMPDH1 Antibody (C-term) Blocking peptide - Images

IMPDH1 Antibody (C-term) Blocking peptide - Background

The protein encoded by this gene acts as a homotetramer toregulate cell growth. The encoded protein is an enzyme thatcatalyzes the synthesis of xanthine monophosphate (XMP) frominosine-5'-monophosphate (IMP). This is the rate-limiting step inthe de novo synthesis of guanine nucleotides. Defects in this geneare a cause of retinitis pigmentosa type 10 (RP10). Severaltranscript variants encoding different isoforms have been found forthis gene.

IMPDH1 Antibody (C-term) Blocking peptide - 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) :