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KD-Validated Anti-IMPDH2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1076

Specification

KD-Validated Anti-IMPDH2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P12268
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 56 kDa, observed, 56 kDa KDa**
Gene Name	**IMPDH2**
Aliases	**IMPDH2; Inosine Monophosphate Dehydrogenase 2; IMP (Inosine 5'-Monophosphate) Dehydrogenase 2; Inosine-5'-Monophosphate Dehydrogenase Type II; Inosine-5'-Monophosphate Dehydrogenase 2; IMP Dehydrogenase II; EC 1.1.1.205; IMPDH-II; IMPDH 2; IMPD 2; IMPD2; IMP (Inosine Monophosphate) Dehydrogenase 2; Inosine Monophosphate Dehydrogenase Type II; Epididymis Secretory Sperm Binding Protein; Inosine 5' Phosphate Dehydrogenase 2; IMP Dehydrogenase 2; IMP Oxireductase 2**
Immunogen	**A synthesized peptide derived from human IMPDH2**

KD-Validated Anti-IMPDH2 Rabbit Monoclonal Antibody - Additional Information

Gene ID **3615**

Other Names
Inosine-5'-monophosphate dehydrogenase 2, IMP dehydrogenase 2, IMPD 2, IMPDH 2, 1.1.1.205, Inosine-5'-monophosphate dehydrogenase type II, IMP dehydrogenase II, IMPDH-II, IMPDH2 (HGNC:6053), IMPD2

KD-Validated Anti-IMPDH2 Rabbit Monoclonal Antibody - Protein Information

Name IMPDH2 (HGNC:6053)

Synonyms IMPD2

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 (PubMed:<a

href="http://www.uniprot.org/citations/7763314" target="_blank">7763314, PubMed:7903306). Could also have a single-stranded nucleic acid-binding activity and could play a role in RNA and/or DNA metabolism (PubMed:14766016). It may also have a role in the development of malignancy and the growth progression of some tumors.

Cellular Location
Cytoplasm. Nucleus. Cytoplasm, cytosol. Note=Can form fiber-like subcellular structures termed 'cytoophidia' in response to intracellular guanine- nucleotide depletion.

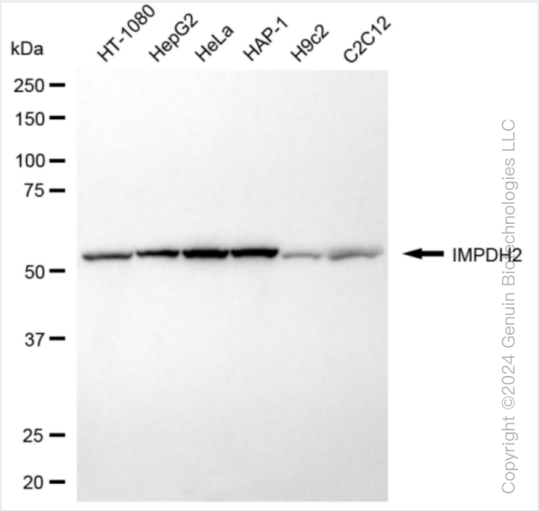
Tissue Location
IMPDH1 is the main species in normal leukocytes and IMPDH2 predominates over IMPDH1 in the tumor

KD-Validated Anti-IMPDH2 Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-IMPDH2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-IMPDH2 antibody (Cat#AGI1076). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-IMPDH2 antibody (Cat#AGI1076, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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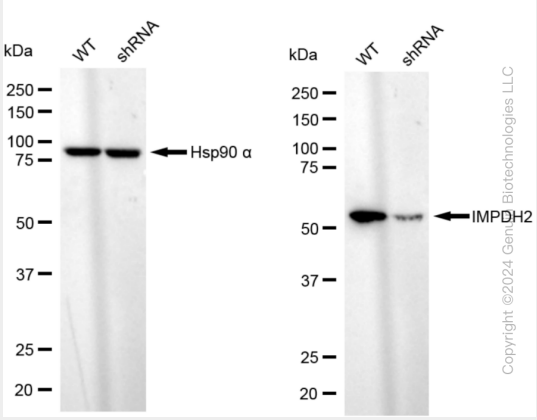
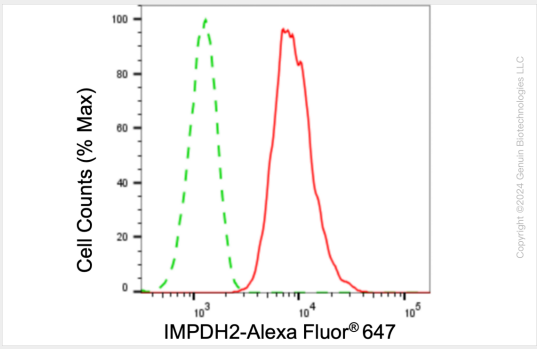
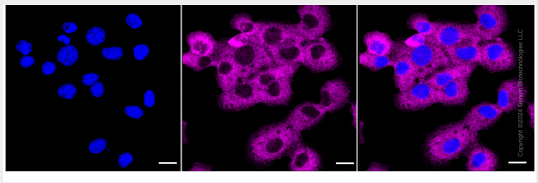


Western blotting analysis using anti-IMPDH2 antibody (Cat#AGI1076). IMPDH2 expression in wild type (WT) and IMPDH2 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-IMPDH2 antibody (Cat#AGI1076, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of IMPDH2 expression in HT-1080 cells using IMPDH2 antibody (Cat#AGI1076, 1:2,000). Green, isotype control; red, IMPDH2.



Immunocytochemical staining of HT-1080 cells with anti-IMPDH2 antibody (Cat#AGI1076, 1:1,000). Nuclei were stained blue with DAPI; IMPDH2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.