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ATIC Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52753

Specification

ATIC Antibody - Product Information

Application	**WB**
Primary Accession	P31939
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**64 KDa**

ATIC Antibody - Additional Information

Gene ID 471

Other Names
5 aminoimidazole 4 carboxamide 1 beta D ribonucleotide transformylase/inosinicase;5 aminoimidazole 4 carboxamide ribonucleotide formyltransferase;5 aminoimidazole 4 carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase;5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase;AICAR;AICAR formyltransferase/IMP cyclohydrolase bifunctional enzyme;AICAR transformylase;AICARFT;AICARFT/IMPCHASE;ATIC; Bifunctional purine biosynthesis protein PURH;FLJ93545;IMP cyclohydrolase;IMP synthase;IMP synthetase;IMPCHASE;Inosinicase;OK/SW-cl.86; Phosphoribosylaminoimidazolecarboxamide formyltransferase; Phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP cyclohydrolase;PUR9_HUMAN; PURH.

Dilution
WB~~1:1000

Format
Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50%,glycerol

Storage
Store at -20 °C.Stable for 12 months from date of receipt

ATIC Antibody - Protein Information

Name ATIC (HGNC:794)

Function
Bifunctional enzyme that catalyzes the last two steps of purine biosynthesis (PubMed:11948179, PubMed:14756554). Acts as a transformylase that incorporates a formyl group to the AMP analog AICAR

(5-amino-1-(5-phospho-beta-D-ribosyl)imidazole-4-carboxamide) to produce the intermediate formyl-AICAR (FAICAR) (PubMed:9378707, PubMed:11948179, PubMed:10985775). Can use both 10-formyldihydrofolate and 10-formyltetrahydrofolate as the formyl donor in this reaction (PubMed:10985775). Also catalyzes the cyclization of FAICAR to IMP (PubMed:11948179, PubMed:14756554). Is able to convert thio-AICAR to 6- mercaptopurine ribonucleotide, an inhibitor of purine biosynthesis used in the treatment of human leukemias (PubMed:10985775). Promotes insulin receptor/INSR autophosphorylation and is involved in INSR internalization (PubMed:25687571).

Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P54113}

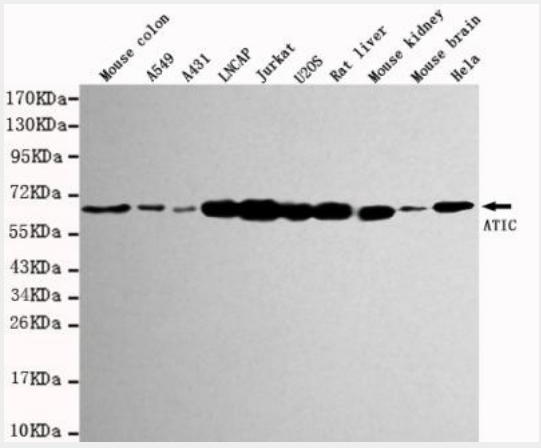
Tissue Location
Present in the heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas.

ATIC 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

ATIC Antibody - Images



Western blot detection of ATIC in various tissues and cell lysates using ATIC mouse mAb (1:1000 diluted).Predicted band size:64KDa.Observed band size:64KDa.

ATIC Antibody - Background

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Bifunctional enzyme that catalyzes 2 steps in purine biosynthesis.

ATIC Antibody - References

Rayl E.A.,et al.J. Biol. Chem. 271:2225-2233(1996).
Yamauchi M.,et al.DNA Res. 2:269-275(1995).
Sugita T.,et al.J. Biochem. 122:309-313(1997).
Shichijo S.,et al.Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).