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ATIC Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52753

Product Information

Application	WB
Primary Accession	P31939
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	64616

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	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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:10985775,

	PubMed:11948179, PubMed:9378707). Can use both 10-formyldihydrofolate and 10-formyltetrahydrofolate as the formyl donor in this reaction (PubMed:10985775). Also catalyzes the cyclization of FAICAR to inosine monophosphate (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.

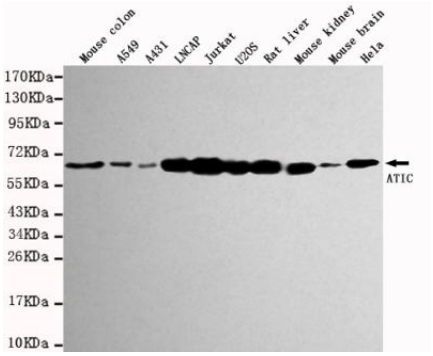
Background

Bifunctional enzyme that catalyzes 2 steps in purine biosynthesis.

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).

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.