

Anti-ATIC Antibody (3H12-C9-H9)
Mouse Monoclonal Antibody
Catalog # ABV12062**Specification**

Anti-ATIC Antibody (3H12-C9-H9) - Product Information

Application	WB
Primary Accession	P31939
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1

Anti-ATIC Antibody (3H12-C9-H9) - Additional Information**Gene ID 471****Application & Usage****WB: A549, A431, LNCaP, Jurkat, U2OS,
HeLa cell lysate, Rat liver tissue lysate,
Mouse kidney tissue lysate, Mouse brain,
Mouse colon tissue lysate****Other Names**

Bifunctional purine biosynthesis protein PURH, 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase, AICAR transformylase, IMP cyclohydrolase, IMP synthase, Inosinicase

Target/Specificity

Bifunctional purine biosynthesis protein PURH

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

In buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Anti-ATIC Antibody (3H12-C9-H9) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-ATIC Antibody (3H12-C9-H9) - Protein Information

Name ATIC ([HGNC:794](#))

Function

Bifunctional enzyme that catalyzes the last two steps of purine biosynthesis (PubMed: [11948179](http://www.uniprot.org/citations/11948179), PubMed: [14756554](http://www.uniprot.org/citations/14756554)). Acts as a transformylase that incorporates a formyl group to the AMP analog AICAR (5-amino-1-(5-phospho-beta-D-ribose)imidazole-4-carboxamide) to produce the intermediate formyl-AICAR (FAICAR) (PubMed: [9378707](http://www.uniprot.org/citations/9378707), PubMed: [11948179](http://www.uniprot.org/citations/11948179), PubMed: [10985775](http://www.uniprot.org/citations/10985775)). Can use both 10-formyldihydrofolate and 10-formyltetrahydrofolate as the formyl donor in this reaction (PubMed: [10985775](http://www.uniprot.org/citations/10985775)). Also catalyzes the cyclization of FAICAR to IMP (PubMed: [11948179](http://www.uniprot.org/citations/11948179), PubMed: [14756554](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/10985775)). Promotes insulin receptor/INSR autophosphorylation and is involved in INSR internalization (PubMed: [25687571](http://www.uniprot.org/citations/25687571)).

Cellular Location

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

Tissue Location

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

Anti-ATIC Antibody (3H12-C9-H9) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-ATIC Antibody (3H12-C9-H9) - Images

Anti-ATIC Antibody (3H12-C9-H9) - Background

This gene encodes a bifunctional protein that catalyzes the last two steps of the de novo purine biosynthetic pathway. The N-terminal domain has phosphoribosylaminoimidazolecarboxamide formyltransferase activity, and the C-terminal domain has IMP cyclohydrolase activity. A mutation in this gene results in AICA-ribosiduria.