

AICAR / ATIC Antibody (clone F38 P7 H9)
Mouse Monoclonal Antibody
Catalog # ALS11840**Specification**

AICAR / ATIC Antibody (clone F38 P7 H9) - Product Information

Application	WB
Primary Accession	P31939
Reactivity	Human, Rabbit, Monkey, Pig, Horse, Xenopus, Bovine, Dog, Drosophila
Host	Mouse
Clonality	Monoclonal
Calculated MW	65kDa kDa

AICAR / ATIC Antibody (clone F38 P7 H9) - Additional Information**Gene ID** 471**Other Names**

Bifunctional purine biosynthesis protein PURH, Phosphoribosylaminoimidazolecarboxamide formyltransferase, 2.1.2.3, 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase, AICAR transformylase, IMP cyclohydrolase, 3.5.4.10, ATIC, IMP synthase, Inosinicase, ATIC, PURH

Target/Specificity

ATIC

Reconstitution & Storage

Store at 4°C. Do not freeze.

Precautions

AICAR / ATIC Antibody (clone F38 P7 H9) is for research use only and not for use in diagnostic or therapeutic procedures.

AICAR / ATIC Antibody (clone F38 P7 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)).

<http://www.uniprot.org/citations/10985775> target="_blank">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.

Volume

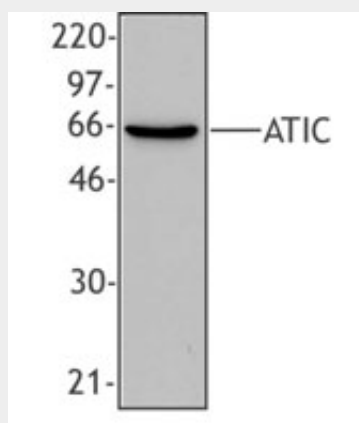
50 µl

AICAR / ATIC Antibody (clone F38 P7 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](#)

AICAR / ATIC Antibody (clone F38 P7 H9) - Images



Western blot of extract from HeLa cells using anti-ATIC, clone F38P7H9.

AICAR / ATIC Antibody (clone F38 P7 H9) - Background

Bifunctional enzyme that catalyzes 2 steps in purine biosynthesis.

AICAR / ATIC Antibody (clone F38 P7 H9) - 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).