

KD-Validated Anti-ATIC Mouse Monoclonal Antibody

Mouse monoclonal antibody

Catalog # AGI1985

Specification

KD-Validated Anti-ATIC Mouse Monoclonal Antibody - Product Information

Application	WB, FC
Primary Accession	P31939
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	Predicted, 65 kDa, observed, 65 kDa kDa
Gene Name	ATIC
Aliases	ATIC; 5-Aminoimidazole-4-Carboxamide Ribonucleotide Formyltransferase/IMP Cyclohydrolase; PURH; IMPCHASE; AICARFT; Phosphoribosylaminoimidazolecarboxamide Formyltransferase/IMP Cyclohydrolase; AICAR Transformylase/Inosine Monophosphate Cyclohydrolase; Bifunctional Purine Biosynthesis Protein ATIC; 5-Aminoimidazole-4-Carboxamide-1-beta-D-Ribonucleotide Transformylase/Inosinase; AICAR Formyltransferase/IMP Cyclohydrolase Bifunctional Enzyme; Epididymis Secretory Sperm Binding Protein Li 70p; Bifunctional Purine Biosynthesis Protein PURH; AICARFT/IMPCHASE; HEL-S-70p; AICAR
Immunogen	Recombinant protein of human ATIC

KD-Validated Anti-ATIC Mouse Monoclonal Antibody - Additional Information

Gene ID **471**

Other Names

Bifunctional purine biosynthesis protein ATIC, AICAR transformylase/inosine monophosphate cyclohydrolase, ATIC, Phosphoribosylaminoimidazolecarboxamide formyltransferase, 2.1.2.3, 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase, AICAR formyltransferase, AICAR transformylase, Inosine 5'-monophosphate cyclohydrolase, IMP cyclohydrolase, 3.5.4.10, IMP synthase, Inosinase, Bifunctional purine biosynthesis protein ATIC, N-terminally processed, ATIC (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=794 target="_blank">HGNC:794)

KD-Validated Anti-ATIC Mouse Monoclonal 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-ribose)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

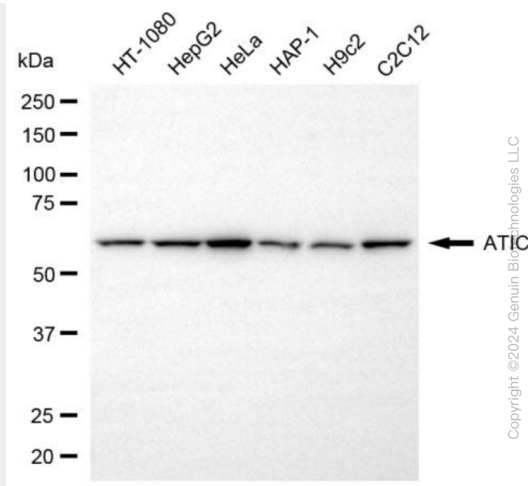
Present in the heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas.

KD-Validated Anti-ATIC Mouse Monoclonal Antibody - Protocols

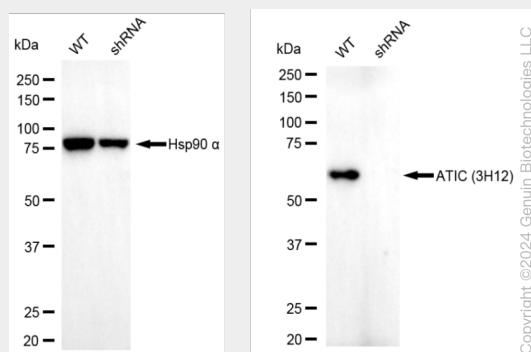
Provided below are standard protocols that you may find useful for product applications.

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

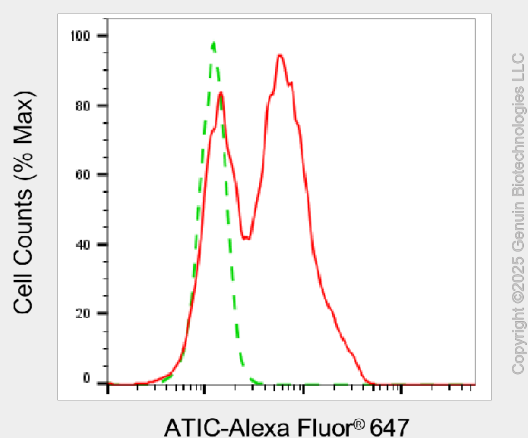
KD-Validated Anti-ATIC Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-ATIC antibody (Cat#AGI1985). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ATIC antibody (Cat#AGI1985, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-ATIC antibody (Cat#AGI1985). ATIC expression in wild-type (WT) and ATIC 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-ATIC antibody (Cat#AGI1985, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Flow cytometric analysis of ATIC expression in C2C12 cells using anti-ATIC antibody (Cat#AGI1985, 1:2,000). Green, isotype control; red, ATIC.