

KD-Validated Anti-ATIC Mouse Monoclonal Antibody
Mouse monoclonal antibody
Catalog # AGI1969**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-β-eta-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 InformationGene 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 InformationName 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

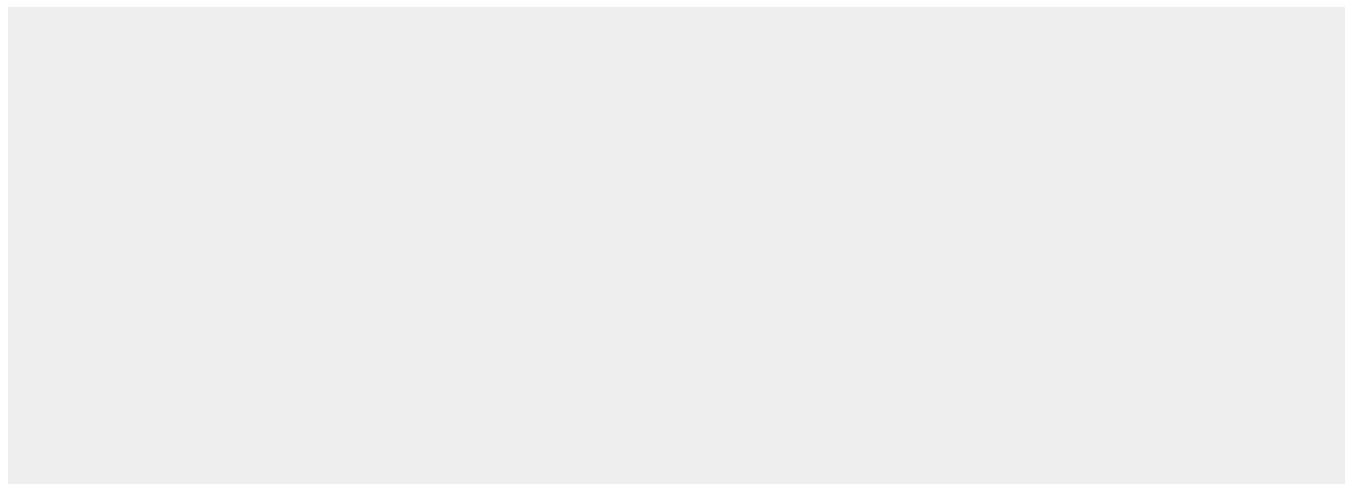
Present in the heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas.

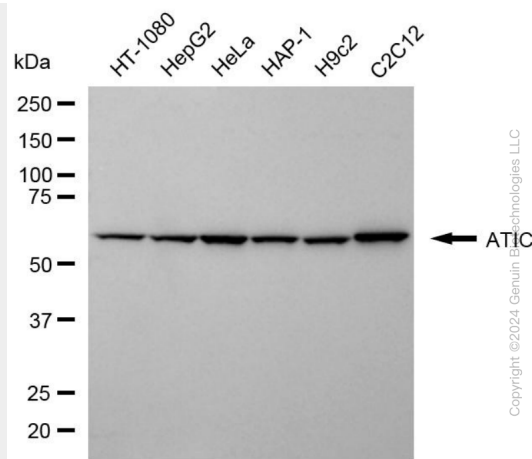
KD-Validated Anti-ATIC Mouse Monoclonal Antibody - Protocols

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

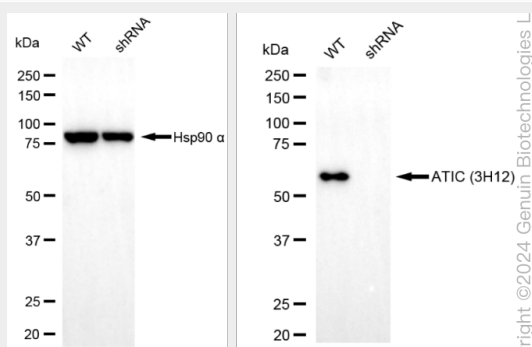
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-ATIC Mouse Monoclonal Antibody - Images

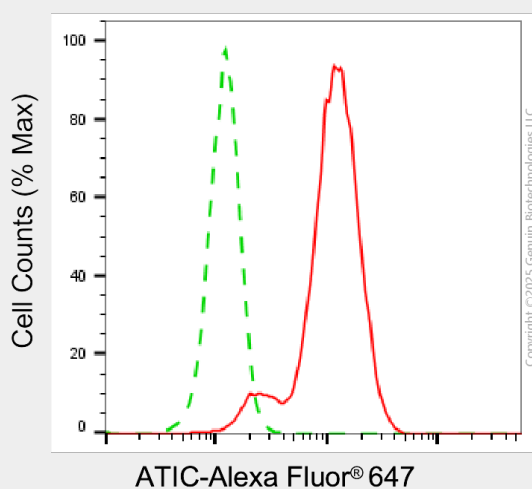




Western blotting analysis using anti-ATIC antibody (Cat#AGI1969). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ATIC antibody (Cat#AGI1969, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-ATIC antibody (Cat#AGI1969). 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#AGI1969, 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#AGI1969, 1:2,000). Green, isotype control; red, ATIC.