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ATIC Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6979b

Specification

ATIC Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P31939

ATIC Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 471

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6979b was selected from the C-term region of human ATIC. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ATIC Antibody (C-term) Blocking Peptide - 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:9378707, PubMed:11948179, PubMed:10985775). Can use both 10-formyldihydrofolate and 10-formyltetrahydrofolate as the formyl donor in this reaction (PubMed:<a

href="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.

ATIC Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ATIC Antibody (C-term) Blocking Peptide - Images

ATIC Antibody (C-term) Blocking Peptide - Background

ATIC is 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.

ATIC Antibody (C-term) Blocking Peptide - References

Vergis,J.M., et.al., J. Biol. Chem. 276 (11), 7727-7733 (2001)