

AICAR transformylase (C-19): sc-49873

BACKGROUND

The bifunctional purine biosynthesis protein ATIC (also designated PURH) contains AICAR transformylase and IMP cyclohydrolase activities. AICAR (5-aminoimidazole-4-carboxamide ribonucleotide) transformylase catalyzes the second to last step in purine biosynthesis, playing an important role in the production of nucleotides and IMP. Defects in the ATIC transformylase gene can cause AICA-rebursia, also designated AICA-ribosiduria, an inborn error in purine biosynthesis that is neurologically cataclysmic. Individuals with AICA-rebursia accumulate AICA-riboside, also designated ZMP, and its derivatives in erythrocytes and fibroblasts. Patients also excrete very large amounts of AICA-riboside in the urine. Mental retardation, epilepsy, dysmorphic features and congenital blindness are all symptoms of this disease.

CHROMOSOMAL LOCATION

Genetic locus: ATIC (human) mapping to 2q35; Atic (mouse) mapping to 1 C3.

SOURCE

AICAR transformylase (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of AICAR transformylase of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49873 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AICAR transformylase (C-19) is recommended for detection of AICAR transformylase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AICAR transformylase (C-19) is also recommended for detection of AICAR transformylase in additional species, including canine and avian.

Suitable for use as control antibody for AICAR transformylase siRNA (h): sc-60139, AICAR transformylase siRNA (m): sc-60140, AICAR transformylase shRNA Plasmid (h): sc-60139-SH, AICAR transformylase shRNA Plasmid (m): sc-60140-SH, AICAR transformylase shRNA (h) Lentiviral Particles: sc-60139-V and AICAR transformylase shRNA (m) Lentiviral Particles: sc-60140-V.

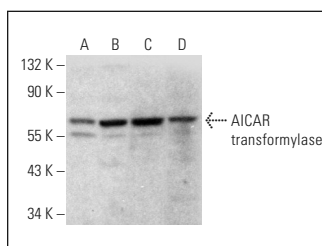
Molecular Weight of AICAR: 65 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A549 cell lysate: sc-2413 or CCRF-CEM cell lysate: sc-2225.

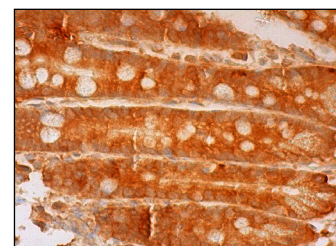
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



AICAR transformylase (C-19): sc-49873. Western blot analysis of AICAR transformylase expression in HeLa (A), CCRF-CEM (B), Jurkat (C) and A549 (D) whole cell lysates.



AICAR transformylase (C-19): sc-49873. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **AICAR transformylase (F38 P7 H9): sc-53612** or **AICAR transformylase (H-3): sc-365402**, our highly recommended monoclonal alternatives to AICAR transformylase (C-19).