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AICAR (h2): 293T Lysate: sc-170520

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-rebrosuria, also designated AICA-ribosiduria, an inborn error in purine biosynthesis that is neurologically cataclysmic. Individuals with AICA-rebrosuria 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.

REFERENCES

1. Marie, S., et al. 2004. AICA-ribosiduria: a novel, neurologically devastating inborn error of purine biosynthesis caused by mutation of ATIC. *Am. J. Hum. Genet.* 74: 1276-1281.
2. Sekizaki, T., et al. 2005. Different foreign genes incidentally integrated into the same locus of the *Streptococcus suis* genome. *J. Bacteriol.* 187: 872-883.
3. Du, J.H., et al. 2005. AICAR stimulates IL-6 production via p38 MAPK in cardiac fibroblasts in adult mice: a possible role for AMPK. *Biochem. Biophys. Res. Commun.* 337: 1139-1144.
4. Costanzi, S., et al. 2005. Ring opening reactions: synthesis of AICAR analogs as potential antimetabolite agents. *Nucleosides Nucleotides Nucleic Acids* 24: 415-418.
5. Terai, K., et al. 2005. AMP-activated protein kinase protects cardiomyocytes against hypoxic injury through attenuation of endoplasmic reticulum stress. *Mol. Cell. Biol.* 25: 9554-9575.
6. Fujii, N., et al. 2005. AMP-activated protein kinase $\alpha 2$ activity is not essential for contraction- and hyperosmolarity-induced glucose transport in skeletal muscle. *J. Biol. Chem.* 280: 39033-39041.
7. Hu, Z., et al. 2005. A role for hypothalamic malonyl-CoA in the control of food intake. *J. Biol. Chem.* 280: 39681-39683.
8. Ayasolla, K.R., et al. 2005. 5-aminoimidazole-4-carboxamide-1- β -D-ribofuranoside (AICAR) attenuates the expression of LPS- and A β peptide-induced inflammatory mediators in astroglia. *J. Neuroinflammation* 2: 21.
9. Camacho, R.C., et al. 2005. 5-aminoimidazole-4-carboxamide-1- β -D-ribofuranoside renders glucose output by the liver of the dog insensitive to a pharmacological increment in Insulin. *Am. J. Physiol. Endocrinol. Metab.* 289: E1039- E1043.

CHROMOSOMAL LOCATION

Genetic locus: Atic (mouse) mapping to 1 C3.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PRODUCT

AICAR transformylase (h2): 293T Lysate represents a lysate of human AICAR transformylase transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

AICAR transformylase (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive AICAR transformylase antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.w

RESEARCH USE

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

PROTOCOLS

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