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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

ADK (m): 293T Lysate: sc-118256

BACKGROUND

Adenosine kinase (ATP:adenosine 5'-phosphotransferase), or ADK, is an abundant enzyme in mammalian tissues that catalyzes the transfer of the γ-phosphate from ATP to adenosine, thereby serving as a regulator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Adenosine, an extracellular signaling molecule, has widespread effects on the cardiovascular, nervous, respiratory, and immune systems with increased concentration at sites of tissue injury and inflammation. Adenosine is an efficient inhibitor of neuronal activity with the ability to suppress seizure activity in various animal models of epilepsy. The human ADK gene maps to chromosome 10q22.2 and encodes 2 ADK transcripts that encode a 345-amino acid form and a 362-amino acid form of the enzyme. These 2 alternately spliced forms differ only at the 5' end, where the first 4 encoded residues of the short form are replaced by 21 residues in the long form. When expressed, both isoforms of the enzyme phosphorylate adenosine with identical kinetics and both require Mg^{2+} for activity. ADK is fully active under dilute conditions, but tends to form soluble aggregates at higher concentrations, which results in inactivation of the enzyme.

REFERENCES

1. Sakowicz, M., et al. 2001. Expression level of adenosine kinase in rat tissues. Lack of phosphate effect on the enzyme activity. Acta Biochim. Pol. 48: 745-754.
2. Zumsteg, V., et al. 2002. The use of real-time PCR with fluorogenic probes for the rapid selection of mutant neuroectodermal grafts. J. Neurosci. Methods 120: 85.
3. Spychala, J., et al. 2002. Cyclosporin A and FK506 decrease adenosine kinase activity and adenosine uptake in T-lymphocytes. J. Lab. Clin. Med. 140: 84-91.
4. Gomtsyan, A., et al. 2002. Design, synthesis, and structure-activity relationship of 6-alkynylpyrimidines as potent adenosine kinase inhibitors. J. Med. Chem. 45: 3639-3648.
5. Chakraborty, A., et al. 2002. A single-domain cyclophilin from *Leishmania donovani* reactivates soluble aggregates of adenosine kinase by isomerase-independent chaperone function. J. Biol. Chem. 277: 47451-47451.
6. LocusLink Report (LocusID: 132). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: Adk (mouse) mapping to 14 A3.

PRODUCT

ADK (m): 293T Lysate represents a lysate of mouse ADK transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

ADK (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ADK antibodies. Recommended use: 10-20 µl per lane.

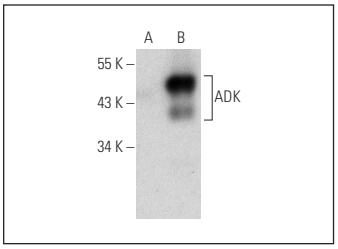
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ADK (F-5): sc-365470 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ADK expression in ADK transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ADK (F-5): sc-365470. Western blot analysis of ADK expression in non-transfected: sc-117752 (**A**) and mouse ADK transfected: sc-118256 (**B**) 293T whole cell lysates.

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.