SANTA CRUZ BIOTECHNOLOGY, INC.

AK7 (h2): 293T Lysate: sc-173971

BACKGROUND

AK7 (adenylate kinase 7) is a 723 amino acid protein that belongs to the adenylate kinase family and functions to catalyze the conversion of one ATP and one AMP to two ADP molecules. The gene encoding AK7 maps to human chromosome 14q32.2, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the Presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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5. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
6. Cruz, P.E., et al. 2007. The promise of gene therapy for the treatment of α1-antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.
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8. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B cell malignancies carrying a t(14;19)(q32;q13) or variant Bcl-3-translocation. Leukemia 21: 1532-1544.
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CHROMOSOMAL LOCATION

Genetic locus: AK7 (human) mapping to 14q32.2.

PRODUCT

AK7 (h2): 293T Lysate represents a lysate of human AK7 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.

RESEARCH USE

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

APPLICATIONS

AK7 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive AK7 antibodies. Recommended use: 10-20 µl per lane.

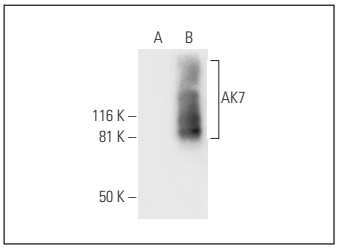
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AK7 (D-5): sc-393337 is recommended as a positive control antibody for Western Blot analysis of enhanced human AK7 expression in AK7 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



AK7 (D-5): sc-393337. Western blot analysis of AK7 expression in non-transfected: sc-117752 (**A**) and human AK7 transfected: sc-173971 (**B**) 293T whole cell lysates.

PROTOCOLS

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