

AK7 (S-19): sc-74903

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 2 ADP molecules. The gene encoding AK7 maps to human chromosome 14, 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 α 1-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.
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CHROMOSOMAL LOCATION

Genetic locus: AK7 (human) mapping to 14q32.2; Ak7 (mouse) mapping to 12 E.

SOURCE

AK7 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AK7 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-74903 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AK7 (S-19) is recommended for detection of AK7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AK7 (S-19) is also recommended for detection of AK7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AK7 siRNA (h): sc-72470, AK7 siRNA (m): sc-72471, AK7 shRNA Plasmid (h): sc-72470-SH, AK7 shRNA Plasmid (m): sc-72471-SH, AK7 shRNA (h) Lentiviral Particles: sc-72470-V and AK7 shRNA (m) Lentiviral Particles: sc-72471-V.

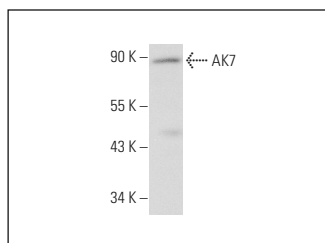
Molecular Weight of AK7: 83 kDa.

Positive Controls: T-47D cell lysate: sc-2293 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

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.

DATA



AK7 (S-19): sc-74903. Western blot analysis of AK7 expression in NTERA-2 cl.D1 whole cell lysate.

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.