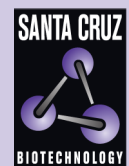


## AK7 (D-5): sc-393337



The Power to Question

## 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 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  $\alpha$ 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

## REFERENCES

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3. Stolk, J., et al. 2006.  $\alpha$ 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. *Int. J. Chron. Obstruct. Pulmon. Dis.* 1: 151-160.
4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of Presenilins. *Mol. Neurodegener.* 1: 4.
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## CHROMOSOMAL LOCATION

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

## SOURCE

AK7 (D-5) is a mouse monoclonal antibody raised against amino acids 518-723 mapping at the C-terminus of AK7 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AK7 (D-5) is available conjugated to agarose (sc-393337 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393337 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393337 PE), fluorescein (sc-393337 FITC), Alexa Fluor<sup>®</sup> 488 (sc-393337 AF488), Alexa Fluor<sup>®</sup> 546 (sc-393337 AF546), Alexa Fluor<sup>®</sup> 594 (sc-393337 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-393337 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-393337 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-393337 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

AK7 (D-5) is recommended for detection of AK7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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.

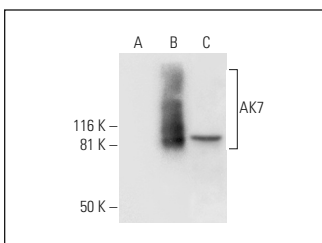
Molecular Weight of AK7: 83 kDa.

Positive Controls: T-47D cell lysate: sc-2293 or AK7 (h2): 293T Lysate: sc-173971.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



AK7 (D-5): sc-393337. Western blot analysis of AK7 expression in non-transfected 293T: sc-117752 (A), human AK7 transfected 293T: sc-173971 (B) and T-47D (C) whole cell lysates.

## 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.

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