SANTA CRUZ BIOTECHNOLOGY, INC.

# AATK (P-12): sc-107352

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*The Power to Question*

## BACKGROUND

AATK (Apoptosis-associated tyrosine kinase), also known as LMR1 (Lemur tyrosine kinase 1), AATYK, AATYK1 or LMTK1, is a single-pass type I membrane protein that is involved in neuronal differentiation. Localized to the brain, AATK expression is induced during apoptosis and may be necessary for growth arrest of myeloid precursor cells. Additionally, AATK functions in death activation pathways in the brain where it helps to regulate neuronal apoptosis; a crucial event that minimizes brain damage and ensures proper development. AATK, which has *in vitro* kinase activity, contains a proline-rich domain at its C-terminus and a tyrosine kinase domain at its N-terminus. Three isoforms of AATK exist due to alternative splicing events.

## REFERENCES


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3. Baker, S.J., Sumerson, R., Reddy, C.D., Berrebi, A.S., Flynn, D.C. and Reddy, E.P. 2001. Characterization of an alternatively spliced AATYK mRNA: expression pattern of AATYK in the brain and neuronal cells. Oncogene 20: 1015-1021.
4. Tomomura, M., Fernandez-Gonzales, A., Yano, R. and Yuzaki, M. 2001. Characterization of the apoptosis-associated tyrosine kinase (AATYK) expressed in the CNS. Oncogene 20: 1022-1032.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605276. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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7. Tomomura, M. and Furuichi, T. 2005. Apoptosis-associated tyrosine kinase (AATYK) has differential $Ca^{2+}$-dependent phosphorylation states in response to survival and apoptotic conditions in cerebellar granule cells. J. Biol. Chem. 280: 35157-35163.


## CHROMOSOMAL LOCATION

Genetic locus: AATK (human) mapping to 17q25.3; Aatk (mouse) mapping to 11 E2.

## SOURCE

AATK (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AATK of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107352 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

AATK (P-12) is recommended for detection of AATK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 AATK siRNA (h): sc-93982, AATK siRNA (m): sc-140740, AATK shRNA Plasmid (h): sc-93982-SH, AATK shRNA Plasmid (m): sc-140740-SH, AATK shRNA (h) Lentiviral Particles: sc-93982-V and AATK shRNA (m) Lentiviral Particles: sc-140740-V.

Molecular Weight of AATK: 145 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

## 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) 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.

## 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.

## PROTOCOLS

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