

# ADAL (E-12): sc-138086

## BACKGROUND

ADAL (adenosine deaminase-like) is a 355 amino acid protein belonging to the adenosine and AMP deaminases family. Encoded by a gene that maps to human chromosome 15q15.3, ADAL exists as two alternatively spliced isoforms and may share the same catalytic function as adenosine deaminase. ADAL operates as a hydrolase and participates in adenosine deaminase activities, nucleotide metabolism and purine ribonucleoside monophosphate biosynthetic processes. ADAL is down-regulated in RNA in the presence of human T-cell leukemia virus type 1 (HTLV-I) p30. ADAL homologs exist for insects, vertebrates and most fungi, but not in prokaryotes, suggesting ADAL was acquired on the lineage leading to extant eukaryotes.

## REFERENCES

- Riazi, M.A., et al. 2000. The human homolog of insect-derived growth factor, CECR1, is a candidate gene for features of cat eye syndrome. *Genomics* 64: 277-285.
- Charlab, R., et al. 2001. The invertebrate growth factor/CECR1 subfamily of adenosine deaminase proteins. *Gene* 267: 13-22.
- Maier, S.A., et al. 2005. Phylogenetic analysis reveals a novel protein family closely related to adenosine deaminase. *J. Mol. Evol.* 61: 776-794.
- Rosemberg, D.B., et al. 2007. Adenosine deaminase-related genes: molecular identification, tissue expression pattern and truncated alternative splice isoform in adult zebrafish (*Danio rerio*). *Life Sci.* 81: 1526-1534.
- Rosemberg, D.B., et al. 2008. Kinetic characterization of adenosine deaminase activity in zebrafish (*Danio rerio*) brain. *Comp. Biochem. Physiol. B, Biochem. Mol. Biol.* 151: 96-101.
- Taylor, J.M., et al. 2009. Genome wide analysis of human genes transcriptionally and post-transcriptionally regulated by the HTLV-I protein p30. *BMC Genomics* 10: 311.

## CHROMOSOMAL LOCATION

Genetic locus: ADAL (human) mapping to 15q15.3; Adal (mouse) mapping to 2 E5.

## SOURCE

ADAL (E-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ADAL 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-138086 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

ADAL (E-12) is recommended for detection of ADAL isoforms 1 and 2 of mouse and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ADAL (E-12) is also recommended for detection of ADAL isoforms 1 and 2 in additional species, including equine and canine.

Suitable for use as control antibody for ADAL siRNA (h): sc-90262, ADAL siRNA (m): sc-140852, ADAL shRNA Plasmid (h): sc-90262-SH, ADAL shRNA Plasmid (m): sc-140852-SH, ADAL shRNA (h) Lentiviral Particles: sc-90262-V and ADAL shRNA (m) Lentiviral Particles: sc-140852-V.

Molecular Weight of ADAL: 40 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

- Dinh, P.X., et al. 2013. hnRNP K supports vesicular stomatitis virus replication by regulating cell survival and cellular gene expression. *87: 10059-10069.*

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.