

# ATAT1 (N-15): sc-167349

## BACKGROUND

Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene which, when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are also located on chromosome 6. Stickler syndrome, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6. ATAT1 is a 421 amino acid protein and the ATAT1 gene is located on chromosome 6.

## REFERENCES

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- Vuoristo, M.M., et al. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130: 160-164.
- McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
- Batts, K.P. 2007. Iron overload syndromes and the liver. *Mod. Pathol.* 1: S31-S39.
- Olsson, K.S., et al. 2007. The HLA-A1-B8 haplotype hitchhiking with the hemochromatosis mutation: does it affect the phenotype? *Eur. J. Haematol.* 79: 429-434.
- Park, E., et al. 2007. Modulation of Parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.
- Safadi, S.S., et al. 2007. A disease state mutation unfolds the Parkin ubiquitin-like domain. *Biochemistry* 46: 14162-14169.

## CHROMOSOMAL LOCATION

Genetic locus: ATAT1 (human) mapping to 6p21.33; Atat1 (mouse) mapping to 17 B1.

## SOURCE

ATAT1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ATAT1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-167349 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ATAT1 (N-15) is recommended for detection of ATAT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

ATAT1 (N-15) is also recommended for detection of ATAT1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ATAT1 siRNA (h): sc-95272, Atat1 siRNA (m): sc-108799, ATAT1 shRNA Plasmid (h): sc-95272-SH, Atat1 shRNA Plasmid (m): sc-108799-SH, ATAT1 shRNA (h) Lentiviral Particles: sc-95272-V and Atat1 shRNA (m) Lentiviral Particles: sc-108799-V.

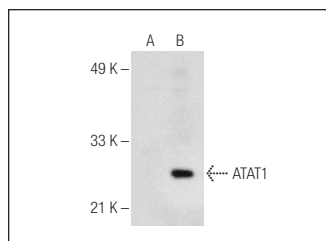
Molecular Weight of ATAT1 isoforms: 34-47 kDa.

Positive Controls: ATAT1 (h): 293T Lysate: sc-114058.

## 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



ATAT1 (N-15): sc-167349. Western blot analysis of ATAT1 expression in non-transfected: sc-117752 (A) and human ATAT1 transfected: sc-114058 (B) 293T 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.