

# VAT1 (P-13): sc-107349

## BACKGROUND

The storage and release of neurotransmitters in the nerve terminal is regulated by synaptic vesicles. In response to an intracellular increase in calcium levels, synaptic vesicles open and release neurotransmitters across the neuronal synapse, thereby propagating nerve impulses between neurons. VAT1 (vesicle amine transport protein 1) is a 393 amino acid integral membrane protein that is located within cholinergic synaptic vesicles. Expressed in tissues throughout the body, VAT1 belongs to the quinone oxidoreductase subfamily of zinc-containing alcohol dehydrogenase proteins and is thought to play a role in vesicular transport. Defects in the gene encoding VAT1 may be associated with endocrine disorders and tumorigenesis.

## CHROMOSOMAL LOCATION

Genetic locus: VAT1 (human) mapping to 17q21.31; Vat1 (mouse) mapping to 11 D.

## SOURCE

VAT1 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of VAT1 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-107349 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-107349 X, 200 µg/0.1 ml.

## RESEARCH USE

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

## APPLICATIONS

VAT1 (P-13) is recommended for detection of VAT1 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).

VAT1 (P-13) is also recommended for detection of VAT1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for VAT1 siRNA (h): sc-93942, VAT1 siRNA (m): sc-155094, VAT1 shRNA Plasmid (h): sc-93942-SH, VAT1 shRNA Plasmid (m): sc-155094-SH, VAT1 shRNA (h) Lentiviral Particles: sc-93942-V and VAT1 shRNA (m) Lentiviral Particles: sc-155094-V.

VAT1 (P-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

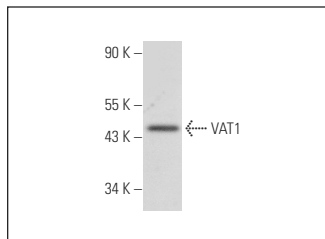
Molecular Weight of VAT1: 42 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## 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



VAT1 (P-13): sc-107349. Western blot analysis of VAT1 expression in NIH/3T3 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.

## PROTOCOLS

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


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Try **VAT1 (3E9): sc-517132**, our highly recommended monoclonal alternative to VAT1 (P-13).