

# GAMT (P-13): sc-132702

## BACKGROUND

In the creatine biosynthesis pathway, glycine is converted to guanidinoacetate by amidinotransferase, and guanidinoacetate is then converted to creatine by Guanidinoacetate N-methyltransferase (GAMT). GAMT, a methyltransferase, uses S-adenosylmethionine as the methyl donor for this reaction. Methyltransferases are a type of transferase enzyme which transfers a methyl group to nucleic bases in DNA or amino acids in protein. Encoding a 236 amino acid protein, the human GAMT gene maps to chromosome 19p13.3. Defects in the GAMT gene leads to GAMT deficiency, which is associated with guanidinoacetate accumulation and decreased levels of creatine excretion in brain. Such biochemical changes are thought to lead to various neurological syndromes and muscular hypotonia.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: GAMT (human) mapping to 19p13.3; Gamt (mouse) mapping to 10 C1.

## SOURCE

GAMT (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GAMT 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-132702 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

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

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

Suitable for use as control antibody for GAMT siRNA (h): sc-97156, GAMT siRNA (m): sc-145323, GAMT shRNA Plasmid (h): sc-97156-SH, GAMT shRNA Plasmid (m): sc-145323-SH, GAMT shRNA (h) Lentiviral Particles: sc-97156-V and GAMT shRNA (m) Lentiviral Particles: sc-145323-V.

Molecular Weight of GAMT: 26 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.