

BGT-1 (C-20): sc-241909

BACKGROUND

BGT-1, also known as sodium- and chloride-dependent betaine transporter, SLC6A12 (solute carrier family 6 member 12) or Na⁺/Cl⁻ betaine/GABA transporter, is a 614 amino acid protein. As a multi-pass membrane protein, BGT-1 localizes to liver, heart, skeletal muscle and placenta and is widely distributed in brain. BGT-1 has the typical structure of neurotransmitter transporters, with twelve transmembrane domains and a large extracellular loop between the third and fourth transmembrane domains. BGT-1 transports betaine and GABA, and may have a role in regulation of GABAergic transmission in the brain through the reuptake of GABA into presynaptic terminals, as well as in osmotic regulation. BGT-1 is associated with mucus production in asthma, and could affect reversibility of lung function abnormalities in aspirin-intolerant asthma patients. BGT-1 displays significant functional differences from the other members of the GABA transporter family.

REFERENCES

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5. Matskevitch, I., et al. 1999. Functional characterization of the Betaine/ γ -aminobutyric acid transporter BGT-1 expressed in *Xenopus* oocytes. *J. Biol. Chem.* 274: 16709-16716.
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CHROMOSOMAL LOCATION

Genetic locus: SLC6A12 (human) mapping to 12p13.33.

SOURCE

BGT-1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of BGT-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-241909 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BGT-1 (C-20) is recommended for detection of BGT-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for BGT-1 siRNA (h): sc-95904, BGT-1 shRNA Plasmid (h): sc-95904-SH and BGT-1 shRNA (h) Lentiviral Particles: sc-95904-V.

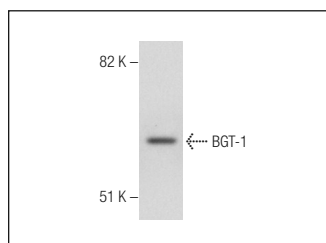
Molecular Weight of BGT-1: 69 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411.

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



BGT-1 (C-20): sc-241909. Western blot analysis of BGT-1 expression in U-87 MG 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.

RESEARCH USE

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