

# GABARAP (C-19): sc-9190

## BACKGROUND

In the central nervous system GABA functions as the main inhibitory transmitter by increasing a Cl<sup>-</sup> conductance that inhibits neuronal firing. GABA has been shown to activate both ionotropic (GABA<sub>A</sub>) and metabotropic (GABA<sub>B</sub>) receptors as well as a third class of receptors called GABA<sub>C</sub>. In addition to GABA receptors, several proteins have been identified as regulators of GABA function, including GAD65, GAD67, GABA transporters and GABARAP (GABA<sub>A</sub> receptor-associated protein). GABARAP associates with GABA<sub>A</sub> Ry2 to link GABA<sub>A</sub> receptors to the cytoskeleton. The GABARAP protein sequence is similar to light chain-3 of microtubule-associated proteins (MAPs), suggesting that it may be a type of MAP or a component of a MAP complex.

## CHROMOSOMAL LOCATION

Genetic locus: GABARAP (human) mapping to 17p13.1, GABARAPL1 (human) mapping to 12p13.2; Gabarap (mouse) mapping to 11 B3, Gabarap1 (mouse) mapping to 6F3.

## SOURCE

GABARAP (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GABARAP 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-9190 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.

## 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.

## APPLICATIONS

GABARAP (C-19) is recommended for detection of GABARAP and GABARAPL1 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).

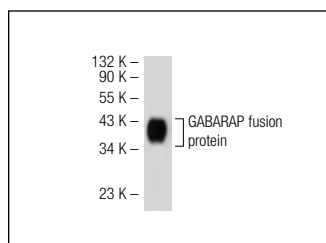
GABARAP (C-19) is also recommended for detection of GABARAP and GABARAPL1 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of GABARAP: 14 kDa.

## 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



GABARAP (C-19): sc-9190. Western blot analysis of human recombinant GABARAP fusion protein.

## SELECT PRODUCT CITATIONS

- Mansuy, V., et al. 2004. GEC1, a protein related to GABARAP, interacts with tubulin and GABA<sub>A</sub> receptor. *Biochem. Biophys. Res. Commun.* 325: 639-648.
- Ieguchi, K., et al. 2007. Role of the guanine nucleotide exchange factor OST in negative regulation of receptor endocytosis by the small GTPase Rac 1. *J. Biol. Chem.* 282: 23296-23305.
- Roberts, S.S., et al. 2009. GABA receptor expression in benign and malignant thyroid tumors. *Pathol. Oncol. Res.* 15: 645-650.
- Baba, H., et al. 2009. Autophagy-mediated stress response in motor neuron after transient ischemia in rabbits. *J. Vasc. Surg.* 50: 381-387.

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