

# Gcom1 (N-17): sc-162854

## BACKGROUND

Glutamate receptors mediate most excitatory neurotransmission in the brain and play an important role in neural plasticity, neural development and neurodegeneration. Ionotropic glutamate receptors are categorized into NMDA receptors and kainate/AMPA receptors, both of which contain glutamate-gated, cation-specific ion channels. Synaptic and extrasynaptic NMDA receptors have been shown to have opposite effects on neuronal survival, CREB function and gene regulation. Gcom1 (GRINL1A complex locus protein 1), also known as GUP (GRINL1A upstream protein) and Gcom (GRINL1A combined protein), is a 466 amino acid protein that is a component of the GRINL1A complex transcription unit, which is thought to be involved in the modulation of glutamatergic neurotransmission through interaction with the NR1 subunit of the NMDA receptor. Gcom1 is expressed in small intestine, lung, liver, heart, skeletal muscle, testis and prostate and also colocalizes with NR1 in cortical and hippocampal neurons. There are 11 isoforms of Gcom1 that are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Gcom1 (human) mapping to 15q21.3; Gcom1 (mouse) mapping to 9 D.

## SOURCE

Gcom1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Gcom1 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-162854 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Gcom1 (N-17) is recommended for detection of Gcom1 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); not reactive with GRINL1A complex locus downstream isoforms, including Gdown1, Gdown3, Gdown4, and Gdown6.

Gcom1 (N-17) is also recommended for detection of Gcom1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Gcom1 siRNA (h): sc-90054, Gcom1 siRNA (m): sc-140709, Gcom1 shRNA Plasmid (h): sc-90054-SH, Gcom1 shRNA Plasmid (m): sc-140709-SH, Gcom1 shRNA (h) Lentiviral Particles: sc-90054-V and Gcom1 shRNA (m) Lentiviral Particles: sc-140709-V.

Molecular Weight of Gcom1: 54 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) 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.