

Gigaxonin (N-18): sc-49688

BACKGROUND

Gigaxonin, also referred to as giant axonal neuropathy, GAN1 or KLHL16, controls protein degradation and is essential for neuronal function and survival. Gigaxonin is a member of the cytoskeletal BTB/kelch repeat family and influences cytoskeletal organization and dynamics, playing a large role in neurofilament architecture. The amino-terminal BTB domain of Gigaxonin binds to the ubiquitin-activating enzyme E1, while the carboxy-terminal kelch repeat domain interacts directly with the light chain of microtubule-associated protein 1B (MAP1B) and tags it for degradation. Overexpression of MAP1B may lead to neuronal cell death, whereas a reduction of MAP1B significantly improves the survival rate of neurons. Mutations in the Gigaxonin gene result in human giant axonal neuropathy (GAN), an autosomal recessive neurodegenerative disorder characterized by axonal degeneration caused by cytoskeletal abnormalities, including accumulated intermediate filaments.

CHROMOSOMAL LOCATION

Genetic locus: GAN (human) mapping to 16q23.2; Gan (mouse) mapping to 8 E1.

SOURCE

Gigaxonin (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Gigaxonin 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-49688 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Gigaxonin (N-18) is recommended for detection of Gigaxonin 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).

Gigaxonin (N-18) is also recommended for detection of Gigaxonin in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Gigaxonin siRNA (h): sc-60687, Gigaxonin siRNA (m): sc-60688, Gigaxonin siRNA (r): sc-156074, Gigaxonin shRNA Plasmid (h): sc-60687-SH, Gigaxonin shRNA Plasmid (m): sc-60688-SH, Gigaxonin shRNA Plasmid (r): sc-156074-SH, Gigaxonin shRNA (h) Lentiviral Particles: sc-60687-V, Gigaxonin shRNA (m) Lentiviral Particles: sc-60688-V and Gigaxonin shRNA (r) Lentiviral Particles: sc-156074-V.

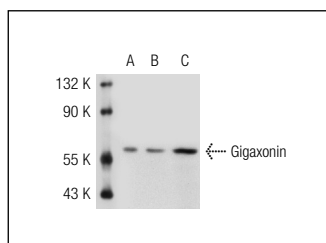
Molecular Weight of Gigaxonin: 68 kDa.

Positive Controls: Gigaxonin (h): 293T Lysate: sc-115556 or HeLa whole cell lysate: sc-2200.

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



Gigaxonin (N-18): sc-49688. Western blot analysis of Gigaxonin expression in non-transfected 293T: sc-117752 (A), human Gigaxonin transfected 293T: sc-115556 (B) and HeLa (C) whole cell lysates.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Gigaxonin (F-11): sc-390067** or **Gigaxonin (F-3): sc-376173**, our highly recommended monoclonal alternatives to Gigaxonin (N-18).