

NAGA (F-16): sc-86752

BACKGROUND

NAGA (N-acetylgalactosaminidase, α), also known as α -galactosidase B or GALB, is a 411 lysosomal protein belonging to the glycosyl hydrolase 27 family that may exist as a homodimer and plays a critical role in glycolipid breakdown. NAGA encodes α -N-acetylgalactosaminidase, a lysosomal enzyme, which cleaves α -N-acetylgalactosaminy groups from glycoconjugates. Mapping to human chromosome 22q13.2, NAGA defects are the cause of an autosomal recessive disorder with 3 phenotypes, known as Schindler disease (types I, II and III) or NAGA deficiency (types I, II and III). Characterized by neurologic manifestations that range in severity, Schindler disease type I is the most severe form, followed by type III, which may have mild-to-moderate effects. Schindler disease type II, also known as Kanzaki disease, is characterized by mild intellectual impairment and angiokeratoma corporis diffusum.

REFERENCES

1. de Groot, P.G., et al. 1978. Localization of a gene for human α -galactosidase B (= n-acetyl- α -d-galactosaminidase) on chromosome 22. Hum. Genet. 44: 305-312.
2. Geurts van Kessel, A.H., et al. 1980. Regional localization of the genes coding for human ACO2, ARSA, and NAGA on chromosome 22. Cytogenet. Cell Genet. 28: 169-172.
3. Wang, A.M., et al. 1990. Schindler disease: the molecular lesion in the α -N-acetylgalactosaminidase gene that causes an infantile neuroaxonal dystrophy. J. Clin. Invest. 86: 1752-1756.
4. de Jong, J., et al. 1994. α -N-acetylgalactosaminidase deficiency with mild clinical manifestations and difficult biochemical diagnosis. J. Pediatr. 125: 385-391.
5. Keulemans, J.L., et al. 1996. Human α -N-acetylgalactosaminidase (α -NAGA) deficiency: new mutations and the paradox between genotype and phenotype. J. Med. Genet. 33: 458-464.

CHROMOSOMAL LOCATION

Genetic locus: NAGA (human) mapping to 22q13.2; Naga (mouse) mapping to 15 E1.

SOURCE

NAGA (F-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NAGA 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-86752 P, (100 μ g 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.

APPLICATIONS

NAGA (F-16) is recommended for detection of NAGA of mouse, rat and 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).

NAGA (F-16) is also recommended for detection of NAGA in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NAGAT siRNA (h): sc-61138, NAGA siRNA (m): sc-149799, NAGAT shRNA Plasmid (h): sc-61138-SH, NAGA shRNA Plasmid (m): sc-149799-SH, NAGAT shRNA (h) Lentiviral Particles: sc-61138-V and NAGA shRNA (m) Lentiviral Particles: sc-149799-V.

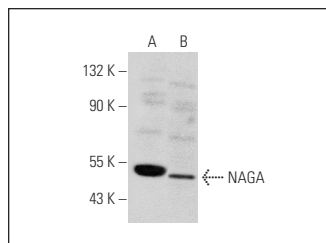
Molecular Weight of NAGA: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or MCF7 whole cell lysate: sc-2206.

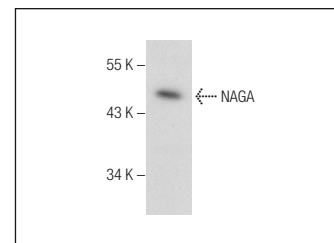
RECOMMENDED SECONDARY REAGENTS

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



NAGA (F-16): sc-86752. Western blot analysis of NAGA expression in MCF7 (A) and Jurkat (B) whole cell lysates.



NAGA (F-16): sc-86752. Western blot analysis of NAGA expression in HeLa whole cell lysate.

RESEARCH USE

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



Try **NAGA (F-1): sc-393485**, our highly recommended monoclonal alternative to NAGA (F-16).