

COX4NB (T-13): sc-107509

BACKGROUND

COX4NB (neighbor of COX4) is a 210 amino acid protein encoded by the human gene COX4NB. COX4NB belongs to the UPF0172 (NOC4) family and is found on chromosome 16, adjacent to the gene that encodes COX4. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16 through the CREBBP gene which encodes a critical CREB binding protein. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene. An association with systemic lupus erythematosus and a number of other auto-immune disorders with the pericentromeric region of chromosome 16 has led to the identification of SLC5A11 as a potential autoimmune modifier.

REFERENCES

1. Ben Hamida, C., et al. 1997. Homozygosity mapping of giant axonal neuropathy gene to chromosome 16q24.1. *Neurogenetics* 1: 129-133.
2. Karlsson, J., et al. 2003. Novel quantitative trait loci controlling development of experimental autoimmune encephalomyelitis and proportion of lymphocyte subpopulations. *J. Immunol.* 170: 1019-1026.
3. Forabosco, P., et al. 2006. Meta-analysis of genome-wide linkage studies of systemic lupus erythematosus. *Genes Immun.* 7: 609-614.
4. Carneiro, L.A., et al. 2007. Nod-like receptors in innate immunity and inflammatory diseases. *Ann. Med.* 39: 581-593.
5. King, K., et al. 2007. Identification, evolution, and association study of a novel promoter and first exon of the human NOD2 (CARD15) gene. *Genomics* 90: 493-501.
6. Gervasini, C., et al. 2007. High frequency of mosaic CREBBP deletions in Rubinstein-Taybi syndrome patients and mapping of somatic and germline breakpoints. *Genomics* 90: 567-573.
7. Koop, O., et al. 2007. Genotype-phenotype analysis in patients with giant axonal neuropathy (GAN). *Neuromuscul. Disord.* 17: 624-630.
8. Tattoli, I., et al. 2007. The Nodosome: NOD1 and NOD2 control bacterial infections and inflammation. *Semin. Immunopathol.* 29: 289-301.

CHROMOSOMAL LOCATION

Genetic locus: EMC8 (human) mapping to 16q24.1; Emc8 (mouse) mapping to 8 E1.

SOURCE

COX4NB (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COX4NB of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-107509 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COX4NB (T-13) is recommended for detection of COX4NB 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).

COX4NB (T-13) is also recommended for detection of COX4NB in additional species, including equine and canine.

Suitable for use as control antibody for COX4NB siRNA (h): sc-93320, COX4NB siRNA (m): sc-142526, COX4NB shRNA Plasmid (h): sc-93320-SH, COX4NB shRNA Plasmid (m): sc-142526-SH, COX4NB shRNA (h) Lentiviral Particles: sc-93320-V and COX4NB shRNA (m) Lentiviral Particles: sc-142526-V.

Molecular Weight of COX4NB: 24 kDa.

Positive Controls: JAR cell lysate: sc-2276, MIA PaCa-2 cell lysate: sc-2285 or SK-N-MC cell lysate: sc-2237.

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.

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.