

# NAALADL2 (N-18): sc-103062

## BACKGROUND

NAALADL2 (N-acetylated  $\alpha$ -linked acidic dipeptidase-like 2), also known as inactive N-acetylated- $\alpha$ -linked acidic dipeptidase-like protein 2, is a 795 amino acid single-pass type II membrane protein that belongs to the peptidase M28 family and M28B subfamily. Existing as two alternatively spliced isoforms, NAALADL2 is expressed at highest levels in placenta and kidney, and has also been observed in certain embryonic tissues. NAALADL2 may be catalytically inactive. The gene encoding NAALADL2 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

## REFERENCES

1. De Jonghe, P., et al. 1997. Mutilating neuropathic ulcerations in a chromosome 3q13-q22 linked Charcot-Marie-Tooth disease type 2B family. *J. Neurol. Neurosurg. Psychiatr.* 62: 570-573.
2. Maho, A., et al. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. *Cytogenet. Cell Genet.* 87: 265-268.
3. Robinson, P.N., et al. 2000. The molecular genetics of Marfan syndrome and related microfibrilopathies. *J. Med. Genet.* 37: 9-25.
4. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
5. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. *Genomics* 83: 193-202.
6. Tonkin, E.T., et al. 2004. A giant novel gene undergoing extensive alternative splicing is severed by a Cornelia de Lange-associated translocation breakpoint at 3q26.3. *Hum. Genet.* 115: 139-148.
7. Pfeifer, G.P., et al. 2005. Methylation of the tumor suppressor gene RASSF1A in human tumors. *Biochemistry Mosc.* 70: 576-583.
8. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. *Genomics* 85: 36-47.
9. Nair, P.N., et al. 2007. High-resolution analysis of 3p deletion in neuroblastoma and differential methylation of the SEMA3B tumor suppressor gene. *Cancer Genet. Cytogenet.* 174: 100-110.

## CHROMOSOMAL LOCATION

Genetic locus: NAALADL2 (human) mapping to 3q26.31; Naaladl2 (mouse) mapping to 3 A3.

## SOURCE

NAALADL2 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NAALADL2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103062 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NAALADL2 (N-18) is recommended for detection of NAALADL2 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); non cross-reactive with family member NAALADL1.

NAALADL2 (N-18) is also recommended for detection of NAALADL2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NAALADL2 siRNA (h): sc-78542, NAALADL2 siRNA (m): sc-149793, NAALADL2 shRNA Plasmid (h): sc-78542-SH, NAALADL2 shRNA Plasmid (m): sc-149793-SH, NAALADL2 shRNA (h) Lentiviral Particles: sc-78542-V and NAALADL2 shRNA (m) Lentiviral Particles: sc-149793-V.

Molecular Weight of NAALADL2 isoforms: 89/36 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.



Try **NAALADL2 (1G5): sc-517173**, our highly recommended monoclonal alternative to NAALADL2 (N-18).