BACKGROUND

NACAD (NAC α domain containing) is a 1,562 amino acid protein that prevents non-secretory polypeptides from targeting the endoplasmic reticulum. Localizing to both the cytoplasm and nucleus, NACAD belongs to the NAC-α family and contains one NAC-A/B (NAC-α/β) domain. The gene encoding NACAD maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: NACAD (human) mapping to 7p13; Nacad (mouse) mapping to 11 A1.

SOURCE

NACAD (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 59-79 near the N-terminus of NACAD of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515113 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NACAD (H-4) is recommended for detection of NACAD of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for NACAD siRNA (h): sc-89561, NACAD siRNA (m): sc-149795, NACAD shRNA Plasmid (h): sc-89561-SH, NACAD shRNA Plasmid (m): sc-149795-SH, NACAD siRNA (h) Lentiviral Particles: sc-89561-V and NACAD shRNA (m) Lentiviral Particles: sc-149795-V.

Molecular Weight of NACAD: 161 kDa.

Positive Controls: SP2/0 whole cell lysate: sc-364795, MCF7 whole cell lysate: sc-2206 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

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 for detailed protocols and support products.