NUDCD2 (S-12): sc-139023



The Power to Question

BACKGROUND

NUDCD2 (nudC domain-containing protein 2) is a 157 amino acid protein that contains one CS domain. The gene encoding NUDCD2 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

- Edwards, S.J., et al. 1997. The mutational spectrum in Treacher Collins syndrome reveals a predominance of mutations that create a prematuretermination codon. Am. J. Hum. Genet. 60: 515-524.
- McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. Hum. Mutat. 10: 317-321.
- 3. Crawford, M.J., et al. 1997. Human and murine PTX1/Ptx1 gene maps to the region for Treacher Collins syndrome. Mamm. Genome 8: 841-845.
- Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. Dis. Colon Rectum 48: 2148-2152.
- Anindya, R., et al. 2007. Damage-induced ubiquitylation of human RNA polymerase II by the ubiquitin ligase Nedd4, but not Cockayne syndrome proteins or BRCA1. Mol. Cell. 28: 386-397.
- Vera-Carbonell, A., et al. 2009. Characterization of a de novo complex chromosomal rearrangement in a patient with cri-du-chat and trisomy 5p syndromes. Am. J. Med. Genet. A. 149A: 2513-2521.
- Ravandi, F., et al. 2009. Superior outcome with hypomethylating therapy in patients with acute myeloid leukemia and high-risk myelodysplastic syndrome and chromosome 5 and 7 abnormalities. Cancer 115: 5746-5751.
- 8. Sazawal, S., et al. 2009. Haematological & molecular profile of acute myelogenous leukaemia in India. Indian J. Med. Res. 129: 256-261.
- Yang, Y., et al. 2010. NudC-like protein 2 regulates the LIS1/dynein pathway by stabilizing LIS1 with Hsp90. Proc. Natl. Acad. Sci. USA 107: 3499-3504.

CHROMOSOMAL LOCATION

Genetic locus: NUDCD2 (human) mapping to 5q34; Nudcd2 (mouse) mapping to 11 A5.

SOURCE

NUDCD2 (S-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of NUDCD2 of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139023 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NUDCD2 (S-12) is recommended for detection of NUDCD2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with NUDCD3.

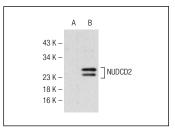
NUDCD2 (S-12) is also recommended for detection of NUDCD2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NUDCD2 siRNA (h): sc-92030, NUDCD2 siRNA (m): sc-150097, NUDCD2 shRNA Plasmid (h): sc-92030-SH, NUDCD2 shRNA Plasmid (m): sc-150097-SH, NUDCD2 shRNA (h) Lentiviral Particles: sc-92030-V and NUDCD2 shRNA (m) Lentiviral Particles: sc-150097-V.

Molecular Weight of NUDCD2: 18 kDa.

Positive Controls: NUDCD2 (h): 293T Lysate: sc-129292.

DATA



NUDCD2 (S-12): sc-139023. Western blot analysis of NUDCD2 expression in non-transfected: sc-117752 (A) and human NUDCD2 transfected: sc-129292 (B) 293T 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**