

# NUDCD2 (T-12): sc-139024

## 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 premature-termination 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.
- 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.
- Sazawal, S., et al. 2009. Haematological & molecular profile of acute myelogenous leukaemia in India. *Indian J. Med. Res.* 129: 256-261.

## CHROMOSOMAL LOCATION

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

## SOURCE

NUDCD2 (T-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-139024 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NUDCD2 (T-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 µg per 100-500 µg 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 (T-12) is also recommended for detection of NUDCD2 in additional species, including canine 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.

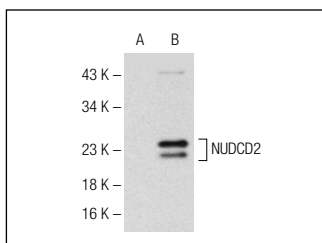
Molecular Weight of NUDCD2: 18 kDa.

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

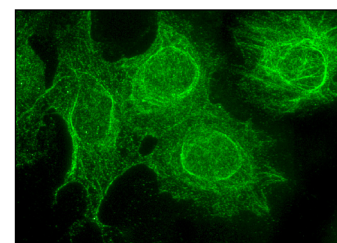
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



NUDCD2 (T-12): sc-139024. Western blot analysis of NUDCD2 expression in non-transfected: sc-117752 (A) and human NUDCD2 transfected: sc-129292 (B) 293T whole cell lysates.



NUDCD2 (T-12): sc-139024. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoskeletal localization.

## 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.