

NUDCD3 (K-13): sc-160616

BACKGROUND

Nuclear migration is essential for growth, development and cellular function of multicellular organisms. NUDCD3 (NudC domain containing 3) is a 361 amino acid protein that contains one CS domain and is phosphorylated upon DNA damage by either ATR or ATM. Ubiquitously expressed, NUDCD3 has been observed to co-localize with Golgi marker proteins during interphase of mitosis in HeLa cells, and is found at low levels in brain, ovary and heart. The gene encoding NUDCD3 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.

REFERENCES

1. Tspirouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.
3. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-56
4. Zhou, T., et al. 2006. A mammalian NudC-like protein essential for dynein stability and cell viability. *Proc. Natl. Acad. Sci. USA* 103: 9039-9044.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610296. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Riera, J. and Lazo, P.S. 2009. The mammalian NudC-like genes: a family with functions other than regulating nuclear distribution. *Cell. Mol. Life Sci.* 66: 2383-2390.

CHROMOSOMAL LOCATION

Genetic locus: NUDCD3 (human) mapping to 7p13; Nudcd3 (mouse) mapping to 11 A1.

SOURCE

NUDCD3 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NUDCD3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-160616 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NUDCD3 (K-13) is recommended for detection of NUDCD3 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 NUDCD2.

NUDCD3 (K-13) is also recommended for detection of NUDCD3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NUDCD3 siRNA (h): sc-89414, NUDCD3 siRNA (m): sc-150098, NUDCD3 shRNA Plasmid (h): sc-89414-SH, NUDCD3 shRNA Plasmid (m): sc-150098-SH, NUDCD3 shRNA (h) Lentiviral Particles: sc-89414-V and NUDCD3 shRNA (m) Lentiviral Particles: sc-150098-V.

Molecular Weight of NUDCD3: 50 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.

SELECT PRODUCT CITATIONS

1. Das, A., et al. 2013. Proteomic changes induced by histone demethylase JMJD3 in TNF α -treated human monocytic (THP-1) cells. *Mol. Immunol.* 56: 113-122.

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.


 MONOS
 Satisfaction
 Guaranteed

Try **NUDCD3 (H-10): sc-514016**, our highly recommended monoclonal alternative to NUDCD3 (K-13).