

NKD2 (N-14): sc-163142

BACKGROUND

The canonical Wnt signaling pathway is a complex network of proteins involved in binding the Wnt ligand to the frizzled family of receptors, leading to activation of the Dvl proteins and, ultimately, a change in β -catenin concentration in the nucleus. NKD2 (naked cuticle homolog 2), also known as Naked2, is a 451 amino acid cell membrane protein belonging to the NKD family. Through interactions with Dvl-1, Dvl-2, Dvl-3 and PP2A-B72/B130, NKD2 functions as an autonomous antagonist of the classical Wnt signaling pathway and activates a second Wnt signaling pathway that controls planar cell polarity. NKD2 is required for processing of TGF α and for escorting TGF α to the basolateral membrane of polarized epithelial cells. NKD2 is a homolog of *Drosophila* naked cuticle, which negatively regulates canonical Wnt signaling by binding dishevelled.

REFERENCES

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- Li, C., et al. 2004. Myristoylated Naked2 escorts transforming growth factor α to the basolateral plasma membrane of polarized epithelial cells. *Proc. Natl. Acad. Sci. USA* 101: 5571-5576.
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- Van Raay, T.J., et al. 2007. Zebrafish Naked1 and Naked2 antagonize both canonical and non-canonical Wnt signaling. *Dev. Biol.* 309: 151-168.
- Li, C., et al. 2007. Naked2 acts as a cargo recognition and targeting protein to ensure proper delivery and fusion of TGF α containing exocytic vesicles at the lower lateral membrane of polarized MDCK cells. *Mol. Biol. Cell* 18: 3081-3093.

CHROMOSOMAL LOCATION

Genetic locus: NKD2 (human) mapping to 5p15.33.

SOURCE

NKD2 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NKD2 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-163142 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NKD2 (N-14) is recommended for detection of NKD2 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with NKD1.

Suitable for use as control antibody for NKD2 siRNA (h): sc-91818, NKD2 shRNA Plasmid (h): sc-91818-SH and NKD2 shRNA (h) Lentiviral Particles: sc-91818-V.

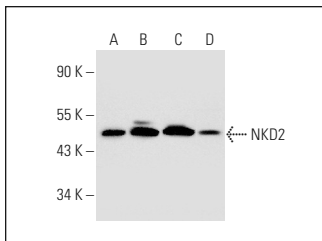
Molecular Weight of NKD2 isoforms: 50/34 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 or MOLT-4 cell lysate: sc-2233.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



NKD2 (N-14): sc-163142. Western blot analysis of NKD2 expression in Jurkat (A), HEK293 (B), MOLT-4 (C) and HCT-116 (D) 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.