SANTA CRUZ BIOTECHNOLOGY, INC.

NOD3 (K-20): sc-74696



BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic α/β horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. NOD3 (nucleotide-binding oligomerization domain protein 3), also known as NLRC3 (NLR family, CARD domain containing 3), is a 1,065 amino acid protein that localizes to the cytoplasm and contains one NACHT domain and 17 LRR repeats. Expressed in peripheral blood mononuclear cells, NOD3 is thought to modulate T cell activation. Multiple isoforms of NOD3 exist due to alternative splicing events.

REFERENCES

- 1. Kobe, B. and Deisenhofer, J. 1994. The leucine-rich repeat: a versatile binding motif. Trends Biochem. Sci. 19: 415-421.
- Kobe, B. and Deisenhofer, J. 1995. Proteins with leucine-rich repeats. Curr. Opin. Struct. Biol. 5: 409-416.
- Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. Curr. Opin. Struct. Biol. 11: 725-732.
- Inohara, N. and Nuñez, G. 2003. NODs: intracellular proteins involved in inflammation and apoptosis. Nat. Rev. Immunol. 3: 371-382.
- Matsushima, N., Tachi, N., Kuroki, Y., Enkhbayar, P., Osaki, M., Kamiya, M. and Kretsinger, R.H. 2005. Structural analysis of leucine-rich-repeat variants in proteins associated with human diseases. Cell. Mol. Life Sci. 62: 2771-2791.
- Conti, B.J., Davis, B.K., Zhang, J., O'Connor, W., Williams, K.L. and Ting, J.P. 2005. CATERPILLER 16.2 (CLR16.2), a novel NBD/LRR family member that negatively regulates T cell function. J. Biol. Chem. 280: 18375-18385.
- Moore, C.B., Medina, M.A., van Deventer, H.W., O'Connor, B.P., Cameron, S., Taxman, D.J., Maile, R., Ting, J.P. and Cairns, B.A. 2007. Downregulation of immune signaling genes in patients with large surface burn injury. J Burn Care Res. 28: 879-887.
- Benko, S., Tozser, J., Miklossy, G., Varga, A., Kadas, J., Csutak, A., Berta, A. and Rajnavolgyi, E. 2008. Constitutive and UV-B modulated transcription of Nod-like receptors and their functional partners in human corneal epithelial cells. Mol. Vis. 14: 1575-1583.

CHROMOSOMAL LOCATION

Genetic locus: NLRC3 (human) mapping to 16p13.3; NIrc3 (mouse) mapping to 16 A1.

SOURCE

NOD3 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NOD3 of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74696 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NOD3 (K-20) is recommended for detection of NOD3 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).

NOD3 (K-20) is also recommended for detection of NOD3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for NOD3 siRNA (h): sc-75941, NOD3 siRNA (m): sc-75942, NOD3 shRNA Plasmid (h): sc-75941-SH, NOD3 shRNA Plasmid (m): sc-75942-SH, NOD3 shRNA (h) Lentiviral Particles: sc-75941-V and NOD3 shRNA (m) Lentiviral Particles: sc-75942-V.

Molecular Weight of NOD3: 115 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) Immunofluo-rescence: 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.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try NOD3 (E-4): sc-398947, our highly recommended monoclonal alternative to NOD3 (K-20).