

NOD3 (C-17): sc-74694

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 and may be involved in transcriptional control events related to T cell activation. Multiple isoforms of NOD3 exist due to alternative splicing events.

REFERENCES

1. Kobe, B., et al. 1994. The leucine-rich repeat: a versatile binding motif. *Trends Biochem. Sci.* 19: 415-421.
2. Kobe, B., et al. 1995. Proteins with leucine-rich repeats. *Curr. Opin. Struct. Biol.* 5: 409-416.
3. Kobe, B., et al. 2001. The leucine-rich repeat as a protein recognition motif. *Curr. Opin. Struct. Biol.* 11: 725-732.
4. Inohara, N., et al. 2003. NODs: intracellular proteins involved in inflammation and apoptosis. *Nat. Rev. Immunol.* 3: 371-382.
5. Matsushima, N., et al. 2005. Structural analysis of leucine-rich-repeat variants in proteins associated with human diseases. *Cell. Mol. Life Sci.* 62: 2771-2791.
6. Conti, B.J., et al. 2005. CATERPILLER 16.2 (CLR16.2), a novel NBD/LRR family member that negatively regulates T cell function. *J. Biol. Chem.* 280: 18375-18385.
7. Moore, C.B., et al. 2007. Downregulation of immune signaling genes in patients with large surface burn injury. *J. Burn Care Res.* 28: 879-887.

CHROMOSOMAL LOCATION

Genetic locus: NLRC3 (human) mapping to 16p13.3; Nlrc3 (mouse) mapping to 16 A1.

SOURCE

NOD3 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NOD3 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-74694 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

NOD3 (C-17) 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), 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).

NOD3 (C-17) is also recommended for detection of NOD3 in additional species, including equine, canine, bovine and porcine.

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.

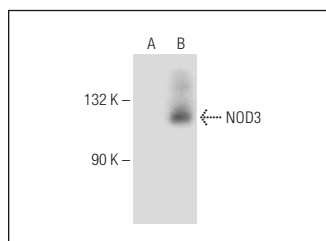
Molecular Weight of NOD3: 115 kDa.

Positive Controls: NOD3 (m): 293T Lysate: sc-179012.

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



NOD3 (C-17): sc-74694. Western blot analysis of NOD3 expression in non-transfected: sc-117752 (A) and mouse NOD3 transfected: sc-179012 (B) 293T whole cell lysates.

RESEARCH USE

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

MONOS
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Try **NOD3 (E-4): sc-398947**, our highly recommended monoclonal alternative to NOD3 (C-17).