

NLRC5 (D-18): sc-248094

BACKGROUND

The leucine-rich repeat (LRR) 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 LRRs contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. NLRC5, also known as NOD4 or NOD27, is a 1,866 amino acid cytoplasmic protein that contains one NACHT domain and 26 LRRs. NLRC5 is thought to function as a regulator of the NF κ B and type I/II interferon signaling pathways. Other roles of NLRC5 include control of innate immunity and antiviral defense. NLRC5 is expressed in brain, lung, thymus, heart, spleen and prostate and exists as six alternatively spliced isoforms. The gene encoding NLRC5 maps to human chromosome 16.

REFERENCES

1. Kobe, B. and Deisenhofer, J. 1994. The leucine-rich repeat: a versatile binding motif. *Trends Biochem. Sci.* 19: 415-421.
2. Kobe, B. and Deisenhofer, J. 1995. Proteins with leucine-rich repeats. *Curr. Opin. Struct. Biol.* 5: 409-416.
3. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. *Curr. Opin. Struct. Biol.* 11: 725-732.
4. Dowds, T.A., et al. 2003. Regulation of Cryopyrin/Pypaf1 signaling by Pypin, the familial Mediterranean fever gene product. *Biochem. Biophys. Res. Commun.* 302: 575-580.
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. Benko, S., et al. 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.
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CHROMOSOMAL LOCATION

Genetic locus: NLRC5 (mouse) mapping to 8 C4.

SOURCE

NLRC5 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NLRC5 of mouse 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-248094 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NLRC5 (D-18) is recommended for detection of NLRC5 of mouse 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 Nlr3.

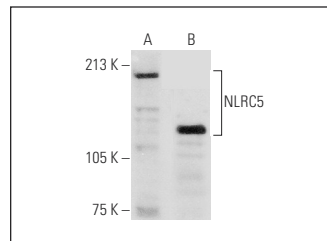
Molecular Weight of NLRC5 isoforms: 212/154 kDa.

Positive Controls: mouse heart extract: sc-2254 or F9 cell lysate: sc-2245.

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



NLRC5 (D-18): sc-248094. Western blot analysis of NLRC5 expression in F9 whole cell lysate (A) and mouse heart tissue extract (B).

STORAGE

Store at 4° C, **DO 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.


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Try **NLRC5 (B-10): sc-515668**, our highly recommended monoclonal alternative to NLRC5 (D-18).