BACKGROUND

The mammalian homologs of the Ced-4 proteins, Apaf-1 (Ced-4), NOD1 (CARD4), and NOD2 contain a caspase recruitment domain (CARD) and a putative nucleotide binding domain, signified by a consensus Walker’s A box (P-loop) and B box (Mg²⁺-binding site). NOD1 contains a putative regulatory domain and multiple leucine-rich repeats. NOD1 is a member of a growing family of intracellular proteins which share structural homology to the apoptosis regulator Apaf-1. NOD1 associates with the CARD-containing kinase RICK and activates NFκB. The self-association of NOD1 mediates proximity of RICK and the interaction of RICK with IKKγ. In addition, NOD1 binds to multiple caspases with long prodomains, but specifically activates caspase-9 and promotes caspase-9-induced apoptosis. NOD2 is composed of two N-terminal CARDs, a nucleotide-binding domain, and multiple C-terminal leucine-rich repeats. The expression of NOD2 is highly restricted to monocytes, and activates NFκB in response to bacterial lipopolysaccharides.

APPLICATIONS

NOD1 (C-9) is recommended for detection of NOD1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 1:30-1:300).

Suitable for use as control antibody for NOD1 siRNA (h): sc-37279, NOD1 shRNA Plasmid (h): sc-37279-SH and NOD1 shRNA (h) Lentiviral Particles: sc-37279-V.

Molecular Weight of NOD1: 108 kDa.

Positive Controls: NOD1 (h): 293T Lysate: sc-113586.

CHROMOSOMAL LOCATION

Genetic locus: NOD1 (human) mapping to 7p14.3.

SOURCE

NOD1 (C-9) is a mouse monoclonal antibody raised against amino acids 715-890 mapping near the C-terminus of NOD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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