# **PRODUCT** INFORMATION



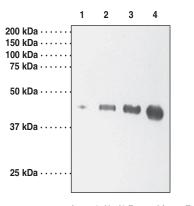
**Nod2 Polyclonal Antibody** 

Item No. 160777

# **Overview and Properties**

Contents: Synonyms:	This vial contains 100 μg of protein A purified antibody. Caspase recruitment domain-containing protein 15, Inflammatory bowel disease protein 1, Nucleotide-binding oligomerization domain-containing protein 2
Immunogen:	Recombinant protein fragment from the internal region of human Nod2
Species Reactivity	: (+) Human; other species not tested
Uniprot No.:	Q9HC29
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host:	Rabbit
Applications:	Western blot; the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

# Image(s)



Lane 1: Nod2 Recombinant Fragment (0.01 µg) Lane 2: Nod2 Recombinant Fragment (0.02 µg) Lane 3: Nod2 Recombinant Fragment (0.03 µg) Lane 4: Nod2 Recombinant Fragment (0.05 µg)

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM

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# Description

Nod2 is a member of a protein family of apoptosis regulators which includes Apaf-1 and Nod1/CARD4.<sup>1</sup> Nod2 contains two N-terminal caspase recruitment domains (CARDs), a nucleotide binding domain (NBD) and C-terminal leucine rich repeats (LRRs). Nod1/CARD4 is broadly expressed in tissues; however, Nod2 expression is limited to monocytes.<sup>1,2</sup> Both Nod1 and Nod2 activate NF-kB and act as intracellular receptors for bacterial lipopolysaccharides (LPS).<sup>2-5</sup> The LRRs of both Nod1 and Nod2 are essential for LPS-induced activation of NF-kB.<sup>4</sup> A frameshift mutation in the NOD2 gene confers susceptibility to Crohn's disease, possibly by causing truncation of the 10th LRR resulting in a protein that is unresponsive to LPS.<sup>6,7</sup>

### References

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- Inohara, N., Koseki, T., Lin, J., et al. An induced proximity model for NF-κB activation in the Nod1/RICK and RIP signaling pathways. J. Biochem. 275(36), 27823-27831 (2000).
- 4. Inohara, N., Ogura, Y., Chen, F.F., *et al.* Human NOD1 confers responsiveness to bacterial lipopolysaccharides. J. Biol. Chem. **276(4)**, 2551-2554 (2001).
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- 6. Ogura, Y., Bonen, D.K., Inohara, N., *et al.* A frameshift mutation in NOD2 associated with susceptibility to Crohn's disease. *Nature* **411**, 603-606 (2001).
- 7. Hugot, J.P., Chamaillard, M., Zouali, H., *et al.* Association of NOD2 leucine-rich repeat variants with susceptibility to Crohn's disease. *Nature* **411**, 599-603 (2001).

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