

**NOD3 Antibody**  
**Catalog # ASC11189****Specification****NOD3 Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">Q7RTR2</a>
Other Accession	<a href="#">EAW85351</a> , <a href="#">119605757</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	NOD3 antibody can be used for detection of NOD3 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunofluorescence starting at 20 µg/mL. For immunofluorescence start at 20 µg/mL.

**NOD3 Antibody - Additional Information**

Gene ID	197358
Target/Specificity	
NLRC3;	

**Reconstitution & Storage**

NOD3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

NOD3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**NOD3 Antibody - Protein Information**

**Name** NLRC3

**Synonyms** NOD3

**Function**

Negative regulator of the innate immune response (PubMed:<a href="http://www.uniprot.org/citations/15705585" target="\_blank">15705585</a>, PubMed:<a href="http://www.uniprot.org/citations/22863753" target="\_blank">22863753</a>, PubMed:<a href="http://www.uniprot.org/citations/25277106" target="\_blank">25277106</a>). Attenuates signaling pathways activated by Toll-like receptors (TLRs) and the DNA sensor STING/TMEM173 in response to pathogen-associated molecular patterns, such as intracellular poly(dA:dT), but not poly(I:C), or in response to DNA virus infection, including that of Herpes simplex virus 1 (HSV1) (By similarity) (PubMed:<a href="http://www.uniprot.org/citations/22863753" target="\_blank">22863753</a>). May affect TLR4 signaling by acting at the level of TRAF6

ubiquitination, decreasing the activating 'Lys-63'-linked ubiquitination and leaving unchanged the degradative 'Lys-48'-linked ubiquitination (PubMed:<a href="http://www.uniprot.org/citations/22863753" target="\_blank">22863753</a>). Inhibits the PI3K-AKT-mTOR pathway possibly by directly interacting with the posphatidylinositol 3-kinase regulatory subunit p85 (PIK3R1/PIK3R2) and disrupting the association between PIK3R1/PIK3R2 and the catalytic subunit p110 (PIK3CA/PIK3CB/PIK3CD) and reducing PIK3R1/PIK3R2 activation. Via its regulation of the PI3K-AKT-mTOR pathway, controls cell proliferation, predominantly in intestinal epithelial cells (By similarity). May also affect NOD1- or NOD2-mediated NF-kappa-B activation (PubMed:<a href="http://www.uniprot.org/citations/25277106" target="\_blank">25277106</a>). Might also affect the inflammatory response by preventing NLRP3 inflammasome formation, CASP1 cleavage and IL1B maturation (PubMed:<a href="http://www.uniprot.org/citations/25277106" target="\_blank">25277106</a>).

### Cellular Location

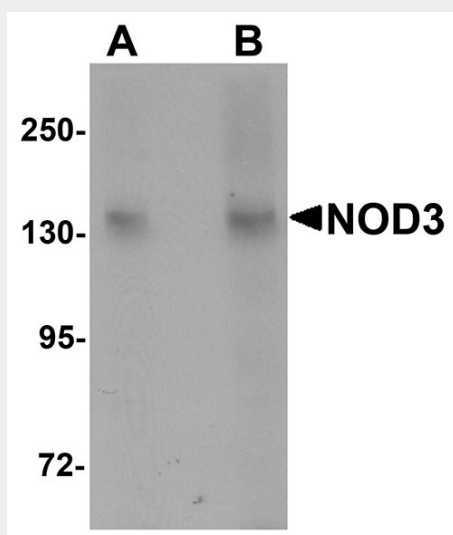
Cytoplasm

### NOD3 Antibody - Protocols

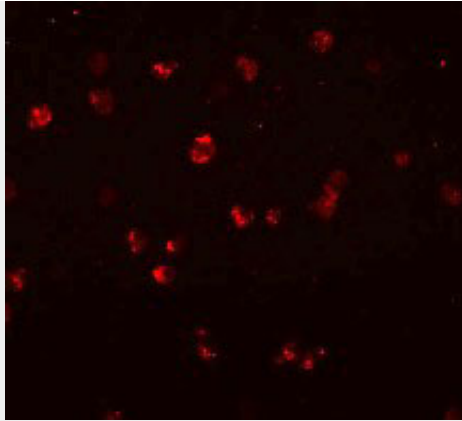
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### NOD3 Antibody - Images



Western blot analysis of NOD3 in 3T3 cell lysate with NOD3 antibody at (A) 1 and (B) 2 µg/mL.



Immunofluorescence of NOD3 in Jurkat cells with NOD3 antibody at 20 µg/mL.

### **NOD3 Antibody - Background**

**NOD3 Antibody:** NOD3 is a member of the NOD (nucleotide-binding oligomerization domain) family, a group of proteins that are involved in innate immune defense. NOD3 also known as NLR family CARD containing 3 (NLRC3), is predominantly expressed in the immune system, particularly in T lymphocytes, and its expression is strongly down-regulated following stimulation of the T-cell receptor complex and CD28, suggesting that NOD3 plays a role in attenuating the activation of T cells. NOD3 inhibits NF-kappaB, AP-1 and NFAT transcriptional activation in Jurkat T cells downstream of CD3/CD28 stimulation or treatment with PMA/ionomycin and decreases IL-2 and CD25 mRNA induction in activated cells.

### **NOD3 Antibody - References**

Kufer TA, Banks DJ, and Philpott DJ. Innate immune sensing of microbes by Nod proteins. *Ann. NY Acad. Sci.* 2006; 1072:19-27.

Conti BJ, Davis BK, Zhang J, et al. CATERPILLER 16.2 (CLR16.2), a novel NBD/LRR family member that negatively regulates T cell function. *J. Biol. Chem.* 2005; 280:18375-85.