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NOD5 Antibody
Catalog # ASC11191

Specification

NOD5 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q86UT6
Other Accession	NP_078894, 25777608
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**NOD5 antibody can be used for detection of NOD5 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.**

NOD5 Antibody - Additional Information

Gene ID **79671**

Target/Specificity
NLRX1;

Reconstitution & Storage
NOD5 antibody can be stored at 4℃ for three months and -20℃, 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
NOD5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NOD5 Antibody - Protein Information

Name NLRX1

Function
Participates in antiviral signaling. Acts as a negative regulator of MAVS-mediated antiviral responses, through the inhibition of the virus-induced RLH (RIG-like helicase)-MAVS interaction (PubMed:18200010). Instead, promotes autophagy by interacting with TUFM and subsequently recruiting the autophagy-related proteins ATG5 and ATG12 (PubMed:22749352). Also regulates MAVS-dependent NLRP3 inflammasome activation to attenuate apoptosis (PubMed:27393910). Has no inhibitory function on NF-kappa-B signaling pathway, but enhances NF-kappa-B and JUN N-terminal kinase dependent signaling through the production of reactive oxygen species (PubMed:<a

href="http://www.uniprot.org/citations/18219313" target="_blank">18219313). Regulates viral mediated-inflammation and energy metabolism in a sex-dependent manner (By similarity). In females, prevents uncontrolled inflammation and energy metabolism and thus, may contribute to the sex differences observed in infectious and inflammatory diseases (By similarity).

Cellular Location
Mitochondrion outer membrane

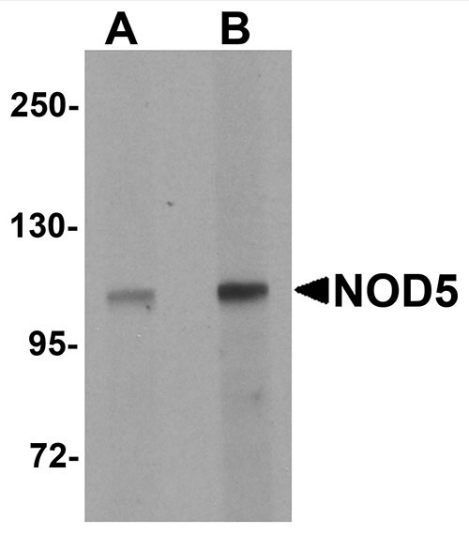
Tissue Location
Ubiquitously expressed. Strongest expression in mammary gland, heart and muscle. Detected in HeLa, HEK293T, THP-1, HL- 60, Raji and Jurkat cell lines (at protein level)

NOD5 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 Cytomety
- Cell Culture

NOD5 Antibody - Images



Western blot analysis of NOD5 in rat spleen tissue cell lysate with NOD5 antibody at (A) 1 and (B) 2 µg/mL.

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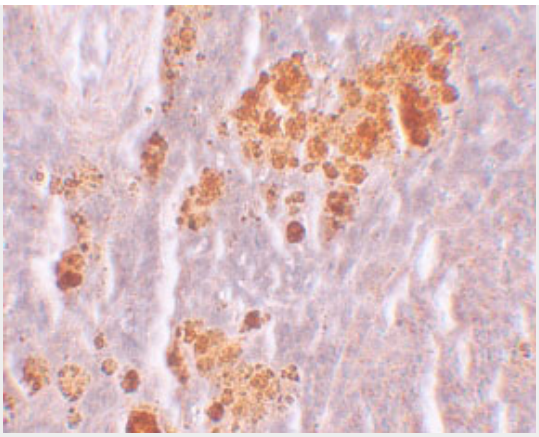
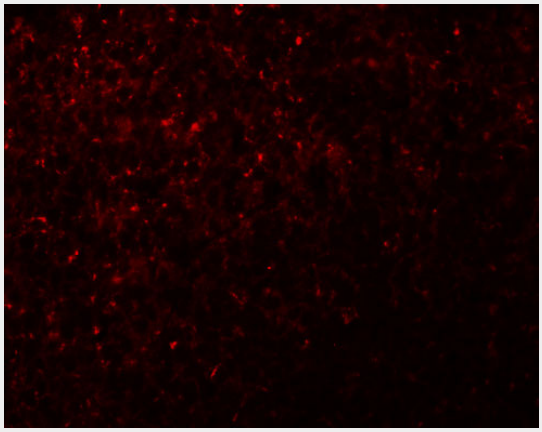


Immunohistochemistry of NOD5 in rat spleen tissue with NOD5 antibody at 10 µg/mL.



Immunofluorescence of NOD5 in rat spleen tissue with NOD5 antibody at 20 µg/mL.

NOD5 Antibody - Background

NOD5 Antibody: NOD5, also known as NLRX1, is a member of the NOD (nucleotide-binding oligomerization domain) family, a group of proteins that are involved in innate immune defense. NOD5 localizes to the mitochondrial outer membrane and interacts with the virus-induced signaling adapter protein VISA. Unlike a subset of NOD-like receptors (NLRs) such as NOD1 and NOD2 which trigger pro-inflammatory cascades, and other NLRs that induce the caspase 1 inflammasome in response to immune challenges, NOD5 amplifies NF-κB and JNK pathways by inducing reactive oxygen species production.

NOD5 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.
Moore CB, Bergstralh DT, Duncan JA, et al. NLRX1 is a regulator of mitochondrial antiviral immunity. Nature2008; 451:573-7.
Tattoli I, Carneiro LA, Jehanno M, et al. NLRX1 is a mitochondrial NOD-like receptor that amplifies NF-kB and JNK pathways by inducing reactive oxygen species. EMBO Reports2008; 9:293-300.