Rabbit NOD1 Polyclonal Antibody | anti-NOD1 antibody

NOD1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326151	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

NOD1; Polyclonal Antibody; NOD1 Antibody; CARD 4; CARD4; Caspase recruitment domain 4; Caspase recruitment domain containing protein 4; Caspase recruitment domain family member 4; Caspase recruitment domain protein 4; Caspase recruitment domain-containing protein 4; CLR 7.1; CLR7.1; NLR family CARD domain containing 1; NLRC 1; NLRC1; NOD 1; Nod1; NOD1 protein; NOD1_HUMAN; Nucleotide binding oligomerization domain containing 1; Nucleotide binding oligomerization domain leucine rich repeat and CARD domain containing 1; Nucleotide-binding oligomerization domain-containing protein 1; Protein Nod1; anti-NOD1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	NOD1 antibody detects endogenous levels of total NOD1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	953
Applicable Applications for anti-NOD1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NOD1
Subcellular Location	Cytoplasm. Cell Membrane. Apical Cell Membrane. Basolateral Cell Membrane. Detected in the cytoplasm and at the cell membrane. Following bacterial infection, localizes to bacterial entry sites in the cell membrane. Recruited to the basolateral and apical membranes in polarized epithelial cells.
Tissue Specificity	Highly expressed in adult heart, skeletal muscle, pancreas, spleen and ovary. Also detected in placenta, lung, liver, kidney, thymus, testis, small intestine and colon.
Predicted Cross Reactivity	**Bovine, Horse, Sheep, Dog**
Similarity	Bovine (90%), Horse (80%), Sheep (80%), Dog (80%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

WB (Western Blot)
Western blot analysis of NOD1 expression in Rat brain lysate

IHC (Immunohiostchemistry)
AAA326151 at 1/100 staining Human lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of Mouse bladder lysate using NOD1 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-NOD1 antibody	Description: Nod1/CARD4 is a cytosolic protein structually related to Apaf-1 and plant drug-resistance proteins that has been implicated in apoptosis and inflammatory responses to certain pathogenic bacteria (1-3). It contains an amino-terminal caspase recruitment domain (CARD) that is linked to a central nucleotide-binding domain (NBD; also known as a NOD domain) and is followed by carboxy-terminal leucine-rich repeats (LRR) (1). Like Apaf-1, Nod1 induces apoptosis by a CARD/NBD-dependent activation of caspase-9 (1). The primary function of Nod1 is thought to be as a sensor for certain pathogenic microbes and triggering inflammatory responses including the activation of NF-kappaB and JNK pathways (4-6). The LRR of Nod1 appears to be involved in recognition of microbial components and the CARD domain induces NF-kappaB activation in cooperation with the CARD containing kinase, RICK/RIP2/CARDIAK (1, 5, 6). Mutations in Nod1 have been linked increased susceptibility to asthma (7) and inflammatory bowel disease (8). Function: Enhances caspase-9-mediated apoptosis. Induces NF-kappa-B activity via RIPK2 and IKK-gamma. Confers responsiveness to intracellular bacterial lipopolysaccharides (LPS). Forms an intracellular sensing system along with ARHGEF2 for the detection of microbial effectors during cell invasion by pathogens. Required for RHOA and RIPK2 dependent NF-kappa-B signaling pathway activation upon S.flexneri cell invasion. Involved not only in sensing peptidoglycan (PGN)-derived muropeptides but also in the activation of NF-kappa-B by Shigella effector proteins IpgB2 and OspB. Recruits NLRP10 to the cell membrane following bacterial infection. Subunit Structure: Homodimer. Self-associates. Binds to caspase-9 and RIPK2 by CARD-CARD interaction. Interacts with ARHGEF2. Interacts with NLRP10 and recruits it to the cell membrane following invasive bacterial infection. Interacts with RNF34. Post-translational Modifications: Ubiquitinated. 'Lys-48'-linked polyubiquitination by RNF34 promotes proteasomal degradation and thereby negatively regulates NOD1 for instance in NF-kappa-B activition.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5174617
NCBI GeneID	10392
NCBI Accession #	NP_006083.1
NCBI GenBank Nucleotide #	NM_006092.3
UniProt Accession #	Q9Y239; Q549U4; Q8IWF5; B4DTU3
Molecular Weight	Observed: 108 kDa Predicted: 108 kDa
NCBI Official Full Name	nucleotide-binding oligomerization domain-containing protein 1 isoform 1
NCBI Official Synonym Full Names	nucleotide binding oligomerization domain containing 1
NCBI Official Symbol	NOD1

NCBI Official Synonym Symbols	CARD4; NLRC1; CLR7.1
NCBI Protein Information	nucleotide-binding oligomerization domain-containing protein 1
UniProt Protein Name	Nucleotide-binding oligomerization domain-containing protein 1
UniProt Gene Name	**NOD1**
UniProt Synonym Gene Names	CARD4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/nod1-antibody-immunohistochemistry-western-blot-elisa/326151