

Product datasheet

Anti-NOD1 antibody [EPR20833] ab215726

Recombinant RabMAb

[4 Images](#)

Overview

Product name	Anti-NOD1 antibody [EPR20833]
Description	Rabbit monoclonal [EPR20833] to NOD1
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Wild-type BMDM whole cell lysate; mouse lung tissue lysate; mouse spleen tissue lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20833
Isotype	IgG

Applications

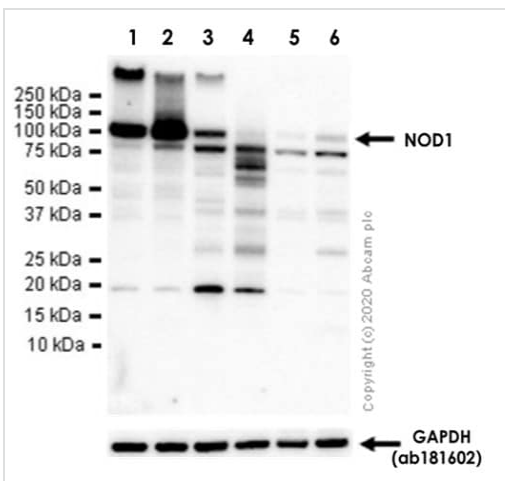
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab215726 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 100 kDa (predicted molecular weight: 107 kDa).

Target

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 <i>S.flexneri</i> cell invasion. Involved not only in sensing peptidoglycan (PGN)-derived muropeptides but also in the activation of NF-kappa-B by <i>Shigella</i> effector proteins IpgB2 and OspB. Recruits NLRP10 to the cell membrane following bacterial infection.
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.
Sequence similarities	Contains 1 CARD domain. Contains 9 LRR (leucine-rich) repeats. Contains 1 NACHT domain.
Post-translational modifications	Ubiquitinated. 'Lys-48'-linked polyubiquitination by RNF34 promotes proteasomal degradation and thereby negatively regulates NOD1 for instance in NF-kappa-B activation.
Cellular localization	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.

Images



Western blot - Anti-NOD1 antibody [EPR20833] (ab215726)

All lanes : Anti-NOD1 antibody [EPR20833] (ab215726) at 1/1000 dilution

Lane 1 : Mouse lung lysate boiled before loading

Lane 2 : Mouse lung lysate not boiled before loading

Lane 3 : Mouse spleen lysate boiled before loading

Lane 4 : Mouse spleen lysate not boiled before loading

Lane 5 : Mouse heart lysate boiled before loading

Lane 6 : Mouse heart lysate not boiled before loading

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 107 kDa

Observed band size: 100 kDa

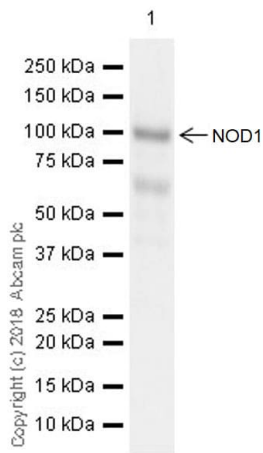
Exposure time: 3 minutes

The 100-kDa band represents NOD1 monomer and the band above 250 kDa is the aggregates. Other bands are unspecific.

This antibody detects a strong BOI (band of interest) in mouse lung and mouse spleen, but a weak BOI in mouse heart which also expresses NOD1 (PMID:25786158, PMID:28878001, PMID:23028889).

Loading control: Rabbit monoclonal [EPR16891] to GAPDH ([ab181602](#))

Blocking buffer: 5% NFD/MTBST



Western blot - Anti-NOD1 antibody [EPR20833]
(ab215726)

Anti-NOD1 antibody [EPR20833] (ab215726) at 1/1000 dilution +
Mouse lung tissue lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 107 kDa

Observed band size: 100 kDa

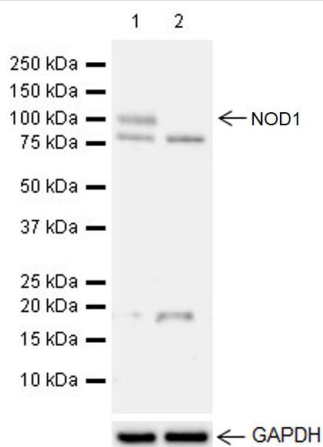
Exposure time: 8 seconds

Blocking/Diluting buffer and concentration: 5% NFDm/TBST.

NOD1 is an alternative name for CARD4.

The 100-kDa band is the specific NOD1 band, other bands are
unspecific.

The lysates were un-boiled to avoid the protein aggregation.



Western blot - Anti-NOD1 antibody [EPR20833]
(ab215726)

All lanes : Anti-NOD1 antibody [EPR20833] (ab215726) at 1/1000
dilution

Lane 1 : Wild-type BMDM (mouse bone marrow-derived
macrophages), whole cell lysate

Lane 2 : NOD1/CARD4 knockout BMDM, whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000
dilution

Predicted band size: 107 kDa

Observed band size: 100 kDa

Exposure time: 3 minutes


Blocking/Diluting buffer and concentration: 5% NFDm/TBST

The 100-kDa band is the specific NOD1 band, other bands are
unspecific.

NOD1 is an alternative name for CARD4.

The WT and NOD1 KO BMDMs lysates were kindly provided by our collaborator Dr. Gang Liu. Tsinghua University.

Why choose a recombinant antibody?



- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Anti-NOD1 antibody [EPR20833] (ab215726)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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