

## Anti-CARD4/NOD1 Antibody Picoband™

Catalog Number: A00495-1

### About NOD1

Nucleotide-binding oligomerization domain-containing protein 1, also known as CARD4, is a protein receptor that in humans is encoded by the NOD1 gene. NOD1 is a member of NOD-like receptor protein family and is a close relative of NOD2. NOD1 is mapped to 7p14.3. It recognizes bacterial molecules and stimulates an immune reaction. NOD1 protein contains a caspase recruitment domain (CARD). This gene is an intracellular pattern recognition receptor, which is similar in structure to resistant proteins of plants, and mediates innate and acquired immunity by recognizing bacterial molecules containing D-glutamyl-meso-diaminopimelic acid (iE-DAP) moiety. What more, it has been shown that NOD1 can sense cytosolic microbial products by monitoring the activation state of small Rho GTPases.

### Overview

|                      |   |
|----------------------|---|
| Product Name         | Anti-CARD4/NOD1 Antibody Picoband™  |
| Reactive Species     | Monkey  |
| Description          | Boster Bio Anti-CARD4/NOD1 Antibody Picoband™ catalog # A00495-1. Tested in WB applications. This antibody reacts with Monkey.  |
| Application          | WB  |
| Clonality            | Polyclonal  |
| Formulation          | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.01mg NaN <sub>3</sub> .  |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |
| Host                 | Rabbit  |
| Uniprot ID           | Q9Y239  |

### Technical Details

|                               |  |
|-------------------------------|--|
| Immunogen                     | A synthetic peptide corresponding to a sequence at the C-terminus of human CARD4/NOD1, which shares 88.2% and 93.8% amino acid (aa) sequence identity with mouse and rat CARD4/NOD1, respectively. |
| Predicted Reactive Species    | Chicken  |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.  |
| Cross Reactivity              | No cross-reactivity with other proteins.   |
| Isotype                       | Rabbit IgG   |

|                     |  |
|---------------------|--|
| Form                | Lyophilized  |
| Concentration       | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.  |
| Purification        | Immunogen affinity purified.   |
| Suggested Dilutions | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Monkey</p> |

## Anti-CARD4/NOD1 Antibody Picoband™ (A00495-1) Images

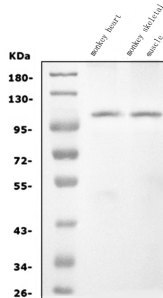


Figure 1. Western blot analysis of CARD4/NOD1 using anti-CARD4/NOD1 antibody (A00495-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.  
Lane 1: monkey heart tissue lysates,  
Lane 2: monkey skeletal muscle tissue lysates.  
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CARD4/NOD1 antigen affinity purified polyclonal antibody (Catalog # A00495-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CARD4/NOD1 at approximately 108KD. The expected band size for CARD4/NOD1 is at 108KD.

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