

## Basic Information

|                           |  |  |
|---------------------------|--|--|
| <b>Product Name</b>       | Anti-CARD4/NOD1 Antibody   |  |
| <b>Gene Name</b>          | NOD1   |  |
| <b>Source</b>             | Rabbit   |  |
| <b>Clonality</b>          | Polyclonal   |  |
| <b>Isotype</b>            | IgG  |  |
| <b>Species Reactivity</b> | human  |  |
| <b>Tested Application</b> | WB, FCM, IHC, ELISA  |  |
| <b>Contents</b>           | 500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.  |  |
| <b>Immunogen</b>          | E.coli-derived human CARD4/NOD1 recombinant protein (Position: N26-F953).  |  |
| <b>Concentration</b>      | 500 ug/ml  |  |
| <b>Purification</b>       | Immunogen affinity purified.   |  |
| <b>Observed MW</b>        | 107 kDa  |  |
| <b>Dilution Ratios</b>    | Western blot (WB): 1:500-2000<br>Immunohistochemistry (IHC): 1:50-400<br>Flow Cytometry (Fixed): 1:50-200<br>Enzyme linked immunosorbent assay (ELISA): 1:100-1000<br>(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. |  |

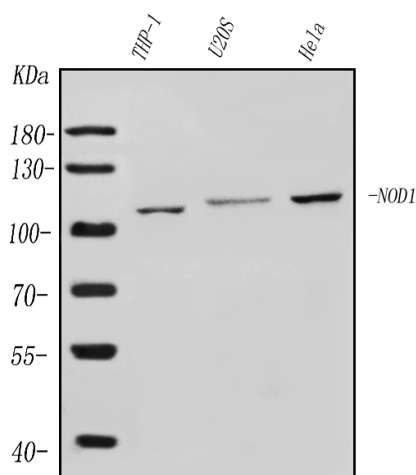
## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

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.

## Selected Validation Data



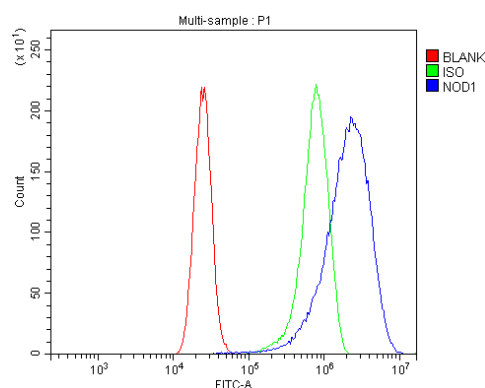
Western blot analysis of CARD4/NOD1 using anti-CARD4/NOD1 antibody (A00495-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human THP-1 whole cell lysates,

Lane 2: human U2OS whole cell lysates,

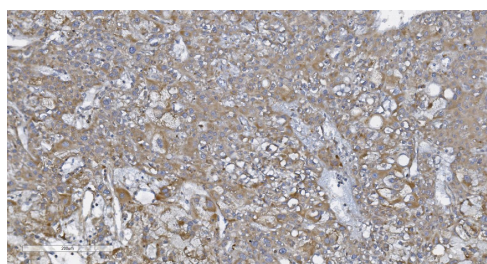
Lane 3: human HELA whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CARD4/NOD1 antigen affinity purified polyclonal antibody (A00495-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CARD4/NOD1 at approximately 107 kDa. The expected band size for CARD4/NOD1 is at 108 kDa.



Flow Cytometry analysis of Caco-2 cells using anti-CARD4/NOD1 antibody (A00495-2).

Overlay histogram showing Caco-2 cells stained with A00495-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CARD4/NOD1 Antibody (A00495-2) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IHC analysis of CARD4/NOD1 using anti-CARD4/NOD1 antibody (A00495-2).

CARD4/NOD1 was detected in a paraffin-embedded section of human liver cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-CARD4/NOD1 Antibody (A00495-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog #

Product datasheet

## Anti-CARD4/NOD1 Antibody

Catalog Number: **A00495-2**



antibody and ELISA experts

**BOSTER BIOLOGICAL TECHNOLOGY**

Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,  
East Lake High-Tech Development Zone, Wuhan.

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SA1022) with DAB (Catalog # AR1027) as the chromogen.