

anti-Human, Rat CARD4 Polyclonal Antibody | anti-CARD4 antibody

Anti-CARD4 Antibody

CATALOG # AAA46346	REACTIVITY Human, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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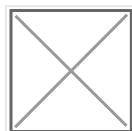
PRODUCT SYNONYMS

CARD4; Polyclonal Antibody; Anti-CARD4 Antibody; Nucleotide-binding oligomerization domain-containing protein 1; CARD 4; 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; Protein Nod1; nucleotide-binding oligomerization domain containing 1; anti-CARD4 antibody

PRODUCT SPECIFICATIONS

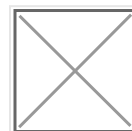
Reactivity	Human, Rat
Clonality	Polyclonal
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized. Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	953
Applicable Applications for anti-CARD4 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human CARD4 recombinant protein (Position: M1-M160). Human CARD4 shares 82% amino acid (aa) sequence identity with mouse CARD4.
Ig Type	Rabbit IgG
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	At -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquoted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



ICC (Immunocytochemistry)

Figure 5. IHC analysis of CARD4 using anti-CARD4 antibody (AAA46346).CARD4 was detected in immunocytochemical section of SMMC-7721 cell. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CARD4 Antibody (AAA46346) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



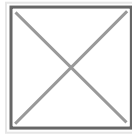
IHC (Immunohistochemistry)

Figure 4. IHC analysis of CARD4 using anti-CARD4 antibody (AAA46346).CARD4 was detected in immunocytochemical section of Hela cell. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CARD4 Antibody (AAA46346) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



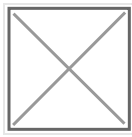
IHC (Immunohistochemisry)

Figure 3. IHC analysis of CARD4 using anti-CARD4 antibody (AAA46346).CARD4 was detected in immunocytochemical section of A549 cell. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CARD4 Antibody (AAA46346) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of CARD4 using anti-CARD4 antibody (AAA46346).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 50ug of sample under reducing conditions.Lane 1: A549 Whole Cell Lysate,Lane 2: Rat Cardiac Muscle Tissue Lysate.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 antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CARD4 at approximately 107KD. The expected band size for CARD4 is at 107KD.



IHC (Immunohiostchemistry)

Figure 2. IHC analysis of CARD4 using anti-CARD4 antibody (AAA46346).CARD4 was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CARD4 Antibody (AAA46346) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-CARD4 antibody	Description: Rabbit IgG polyclonal antibody for Nucleotide-binding oligomerization domain-containing protein 1(NOD1) detection. Tested with WB, IHC-P in Human;Rat. Background: 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 wore, it has been shown that NOD1 can sense cytosolic microbial products by monitoring the activation state of small Rho GTPases.
References	1. Chamaillard, M., Hashimoto, M., Horie, Y., Masumoto, J., Su, Q., Saab, L., Ogura, Y., Kawasaki, A., Fukase, K., Kusumoto, S., Valvano, M. A., Foster, S. J., Mak, T. W., Nunez, G., Inohara, N. An essential role for NOD1 in host recognition of bacterial peptidoglycan containing diaminopimelic acid. Nature Immun. 4: 702-707, 2003. 2. da Silva Correia, J., Miranda, Y., Austin-Brown, N., Hsu, J., Mathison, J., Xiang, R., Zhou, H., Li, Q., Han, J., Ulevitch, R. J. Nod1-dependent control of tumor growth. Proc. Nat. Acad. Sci. 103: 1840-1845, 2006. 3. Martinon F, Tschopp J (2006). "NLRs join TLRs as innate sensors of pathogens.".Trends Immunol. 26 (8): 447-54.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5174617
NCBI GeneID	10392
NCBI Accession #	NP_006083.1
NCBI GenBank Nucleotide #	NM_006092.2
UniProt Accession #	Q9Y239; Q549U4; Q8IWF5; B4DTU3

Molecular Weight	27,949 Da
NCBI Official Full Name	nucleotide-binding oligomerization domain-containing protein 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
UniProt Entry Name	NOD1_HUMAN

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/card4-antibody-immunohistochemistry-western-blot-elisa/46346>