

Datasheet for ABIN3043571
anti-NLRP3 antibody (AA 21-194)



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Overview

Quantity:	100 µg
Target:	NLRP3
Binding Specificity:	AA 21-194
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NLRP3 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Rabbit IgG polyclonal antibody for NACHT, LRR and PYD domains-containing protein 3(NLRP3) detection. Tested with WB in Human.
Immunogen:	E.coli-derived human CIAS1 recombinant protein (Position: D21-K194). Human CIAS1 shares 77% amino acid (aa) sequence identity with mouse CIAS1.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for NACHT, LRR and PYD domains-containing protein 3(NLRP3) detection. Tested with WB in Human.</p> <p>Gene Name: NLR family, pyrin domain containing 3</p> <p>Protein Name: NACHT, LRR and PYD domains-containing protein 3</p>
Purification:	Immunogen affinity purified.

Target Details

Target:	NLRP3
Alternative Name:	NLRP3 (NLRP3 Products)
Background:	<p>NLRP3(NLR FAMILY, PYRIN DOMAIN-CONTAINING 3),also known as CIAS1, CRYOPYRIN, NALP3 or PYPAF1, is a protein that in humans is encoded by the NLRP3 gene. It is mapped to 1q44. The encoded protein may play a role in the regulation of inflammation and apoptosis. Mutation of the NALP3 nucleotide-binding domain reduced ATP binding, CASP1 activation, IL1B production, cell death, macromolecular complex formation, self-association, and association with ASC. Consistent with an essential role for Nlrp3 inflammasomes in antifungal immunity, it has been showed that Nlrp3-deficient mice are hypersusceptible to C. albicans infection. Activation of the NLRP3 inflammasome in response to virus or to RNA was dependent upon lysosomal maturation and reactive oxygen species production in human cells. The NLRP3 inflammasome senses obesity-associated danger signals and contributes to obesity-induced inflammation and insulin resistance.</p> <p>Synonyms: AGTAVPRL antibody AII/AVP antibody Angiotensin/vasopressin receptor AII/AVP like antibody Angiotensin/vasopressin receptor AII/AVP-like antibody C1orf7 antibody Caterpillar protein 1.1 antibody CIAS 1 antibody CIAS1 antibody CLR1.1 antibody Cold autoinflammatory syndrome 1 antibody Cold autoinflammatory syndrome 1 protein antibody Cryopyrin antibody Familial cold autoinflammatory syndrome antibody FCAS antibody FCU antibody LRR and PYD domains-containing protein 3 antibody Muckle-Wells syndrome antibody MWS antibody NACHT antibody NACHT LRR and PYD containing protein 3 antibody NALP 3 antibody NALP3 antibody NALP3_HUMAN antibody NLRP3 antibody PYPAF 1 antibody PYPAF1 antibody PYRIN containing APAF1 like protein 1 antibody PYRIN-containing APAF1-like protein 1 antibody</p>
Gene ID:	114548
UniProt:	Q96P20
Pathways:	Cellular Response to Molecule of Bacterial Origin , Positive Regulation of Endopeptidase Activity , Inflammasome

Application Details

Application Notes:	<p>WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, The detection limit for CIAS1 is approximately 0.25 ng/lane under reducing conditions.</p> <p>Notes: Tested Species: Species with positive results.</p>
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Application Details

Other applications have not been tested. Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

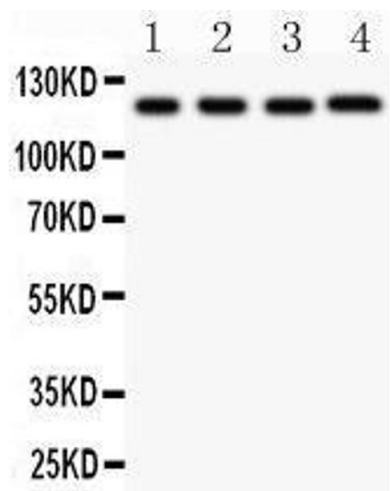
Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

Product cited in: Zhang, Li, Xu, Xiang, Ma: "Luteolin alleviates NLRP3 inflammasome activation and directs macrophage polarization in lipopolysaccharide-stimulated RAW264.7 cells." in: **American journal of translational research**, Vol. 10, Issue 1, pp. 265-273, (2018) ([PubMed](#)).

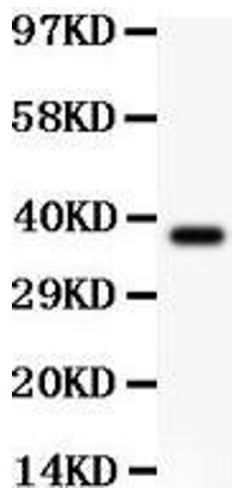
Xue, Wang, Du, Zhu: "Maternal obesity induces gut inflammation and impairs gut epithelial barrier function in nonobese diabetic mice." in: **The Journal of nutritional biochemistry**, Vol. 25, Issue 7, pp. 758-64, (2014) ([PubMed](#)).

Wang, Yang, Liang, Zhu, Du: "Grape seed extract prevents skeletal muscle wasting in interleukin 10 knockout mice." in: **BMC complementary and alternative medicine**, Vol. 14, pp. 162, (2014) ([PubMed](#)).



Western Blotting

Image 1. Observed bind size: 118KD



Western Blotting

Image 2. Anti-CIAS1/NALP3 Picoband antibody, All lanes: Anti CIAS1 at 0.5ug/ml WB: Recombinant Human CIAS1 Protein 0.5ng Predicted bind size: 37KD Observed bind size: 37KD