

Datasheet for ABIN1386361
anti-NLRP3 antibody (AA 15-120)

15 Images

11 Publications

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Overview

Quantity:	100 µL
Target:	NLRP3
Binding Specificity:	AA 15-120
Reactivity:	Human, Mouse, Rat, Dog
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NLRP3 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS), Immunocytochemistry (ICC), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human NLRP3
Isotype:	IgG
Cross-Reactivity:	Dog, Human, Mouse, Rat
Purification:	Purified by Protein A.

Target Details

Target:	NLRP3
Alternative Name:	CIAS1 (NLRP3 Products)

Target Details

Background:	<p>Synonyms: NACHT, LRR and PYD domains-containing protein 3, Angiotensin/vasopressin receptor AII/AVP-like, Caterpillar protein 1.1, CLR1.1, Cold autoinflammatory syndrome 1 protein, Cryopyrin, PYRIN-containing APAF1-like protein 1, NLRP3, C1orf7, CIAS1, NALP3, PYPAP1</p> <p>Background: May function as an inducer of apoptosis. Interacts selectively with ASC and this complex may function as an upstream activator of NF-kappa-B signaling. Inhibits TNF-alpha induced activation and nuclear translocation of RELA/NF-KB p65. Also inhibits transcriptional activity of RELA. Activates caspase-1 in response to a number of triggers including bacterial or viral infection which leads to processing and release of IL1B and IL18.</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 1:300-5000</p> <p>ELISA 1:500-1000</p> <p>FCM 1:20-100</p> <p>IHC-P 1:200-400</p> <p>IHC-F 1:100-500</p> <p>IF(IHC-P) 1:50-200</p> <p>IF(IHC-F) 1:50-200</p> <p>IF(ICC) 1:50-200</p> <p>ICC 1:100-500</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be

Handling

handled by trained staff only.

Storage: 4 °C,-20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

Publications

Product cited in: Li, Jiang, Ye, Zhou, Liu, Yang, Hao, Hu: "P2Y14 receptor has a critical role in acute gouty arthritis by regulating pyroptosis of macrophages." in: **Cell death & disease**, Vol. 11, Issue 5, pp. 394, (2021) ([PubMed](#)).

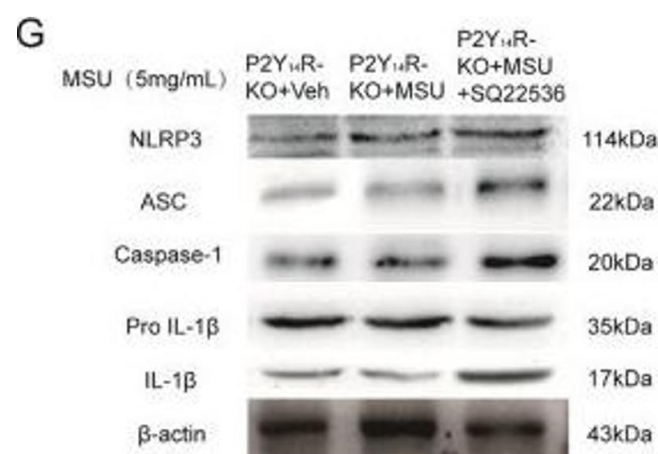
Yang, Cheng, Liu, Liu, Tan, Guan, Guo, Kuang: "Datura Metel L. Ameliorates Imiquimod-Induced Psoriasis-Like Dermatitis and Inhibits Inflammatory Cytokines Production through TLR7/8-MyD88-NF-κB-NLRP3 Inflammasome Pathway." in: **Molecules (Basel, Switzerland)**, Vol. 24, Issue 11, (2019) ([PubMed](#)).

Zendedel, Mönnink, Hassanzadeh, Zaminy, Ansar, Habib, Slowik, Kipp, Beyer: "Estrogen Attenuates Local Inflammasome Expression and Activation after Spinal Cord Injury." in: **Molecular neurobiology**, (2017) ([PubMed](#)).

Yu, Liu, Sun, Wang, Wang, Zhao, Dai, Zhao, Zhang, Li, Han, Lu, Dong, Liu, Yu, Li: "Chronic obstructive sleep apnea promotes aortic remodeling in canines through miR-145/Smad3 signaling pathway." in: **Oncotarget**, Vol. 8, Issue 23, pp. 37705-37716, (2017) ([PubMed](#)).

Zhang, Pan, Yang, Fu, Liu, Chi, Zhang, Hong, Ma, Yin: "H3 Relaxin Protects Against Myocardial Injury in Experimental Diabetic Cardiomyopathy by Inhibiting Myocardial Apoptosis, Fibrosis and Inflammation." in: **Cellular physiology and biochemistry : international journal of experimental cellular physiology, biochemistry, and pharmacology**, Vol. 43, Issue 4, pp. 1311-1324, (2017) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

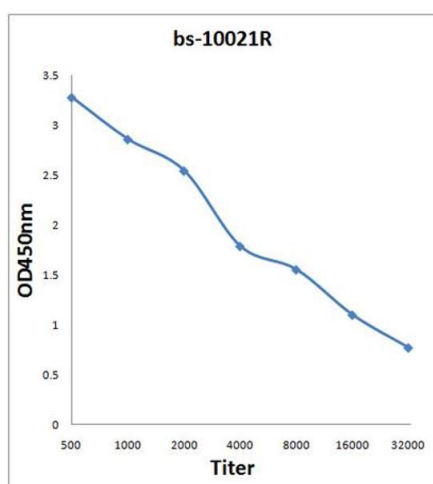


Western Blotting

Image 1. Decreased cAMP exaggerated acute gouty arthritis in P2Y₁₄R-KO rats. SQ22536, an adenylate cyclase (AC) inhibitor, was used in our study to reduce cAMP levels in P2Y₁₄R-KO rats. Intra-articular administration of SQ22536 was given to P2Y₁₄R-KO rats prior to MSU model.

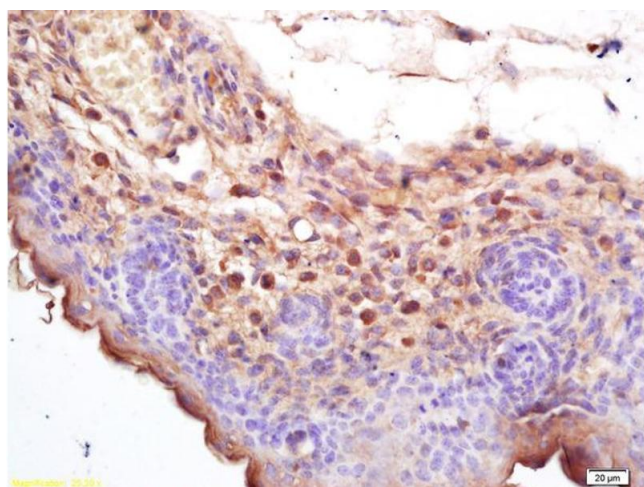
a The intracellular cAMP level decreased significantly in P2Y₁₄R-KO synovial tissue after SQ22536 treatment by cAMP assay kit (n=6). b cAMP reduction caused by SQ22536 abolished the effective effect of P2Y₁₄R-KO on the joint swelling. Representative photographs to show the swelling of joints are presented. c SQ22536-induced cAMP reduction apparently aggravated the injected ankle joint circumference under MSU challenge in P2Y₁₄R-KO rats (n=6). d SQ22536 treatment exhibited a significant exacerbation of inflammatory cell infiltration in histopathologic evaluation of P2Y₁₄R-KO rat synovial tissues. e The increment of pyroptosis positivity could be observed in the macrophages derived from P2Y₁₄R-KO rat synovium after SQ22536 stimulation by flow cytometry (n=4). f SQ22536 treatment enhanced the colocalization intensity of synovial NLRP3 and ASC in MSU-stimulated P2Y₁₄R-KO rats in immunofluorescence staining. NLRP3 protein was marked with Alexa Fluor 488 (Green). ASC protein was marked with Alexa Fluor 647 (Red). DAPI (Blue) was used to mark the nucleus. g Western blotting showed that the activation of synovial NLRP3 inflammasome signaling was markedly provoked by decreased cAMP in SQ22536-treated P2Y₁₄R-KO rats. The relative optical density was exhibited in the supplementary materials (n=4). The data were presented as means±SDs. One-way analysis of variance (ANOVA) with Tukey multiple comparison test was performed. Compared with P2Y₁₄R-KO+vehicle group: #P<0.05, ##P<0.01, ###P<0.001. Compared with P2Y₁₄R-KO+MSU group: *P<0.05, **P<0.01, ***P<0.001. - figure

provided by CiteAb. Source: PMID32457291



ELISA

Image 2. Antigen: 2 µg/100 µL Primary: Antiserum, 1:500, 1:1000, 1:2000, 1:4000, 1:8000, 1:16000, 1:32000; Secondary: HRP conjugated Rabbit Anti-Goat IgG at 1: 5000; TMB staining Read the data in Microplate Reader by 450nm.



Immunohistochemistry

Image 3. Formalin-fixed and paraffin embedded mouse embryo labeled with Rabbit Anti Cryopyrin/CIAS1/NALP3 Polyclonal Antibody, Unconjugated (ABIN1386361) at 1:200 followed by conjugation to the secondary antibody and DAB staining

Please check the [product details page](#) for more images. Overall 15 images are available for ABIN1386361.