Datasheet for ABIN5675787

anti-Caspase 1 p20 antibody (AA 181-280)

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Overview

Quantity:	100 µL
Target:	Caspase 1 p20
Binding Specificity:	AA 181-280
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Caspase 1 p20 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunocytochemistry (ICC)

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from mouse Caspase-1 p20
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein A.

Target Details

Target:	Caspase 1 p20
Alternative Name:	Caspase-1 p20 (Caspase 1 p20 Products)

Target Details

Background:	Synonyms: Caspase-1, Casp1, CASP-1, Interleukin-1 beta convertase, IL-1BC, Interleukin-1 beta-converting enzyme, ICE, IL-1 beta-converting enzyme, p45, Casp1, Caspase-1 subunit p20, Il1bc Background: Thiol protease that cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. Important for defense against pathogens. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Can also promote apoptosis.
Gene ID:	12362
UniProt:	P29452

Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200
	ICC 1:100-500

Restrictions:	For Research Use only

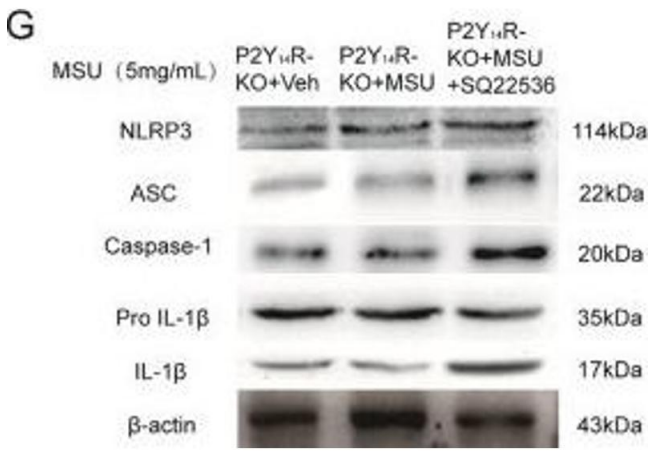
Handling

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 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: Wang, Gong, Cai, Jing, Yang, Yuan, Chen, Tian: "Knockout of Sirt2 alleviates traumatic brain injury in mice." in: **Neural regeneration research**, Vol. 18, Issue 2, pp. 350-356, (2023) (PubMed).

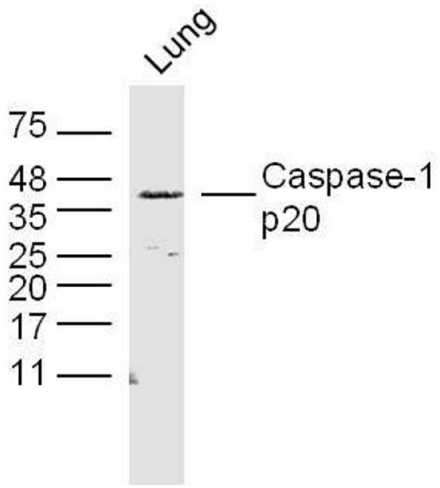
Images



Western Blotting

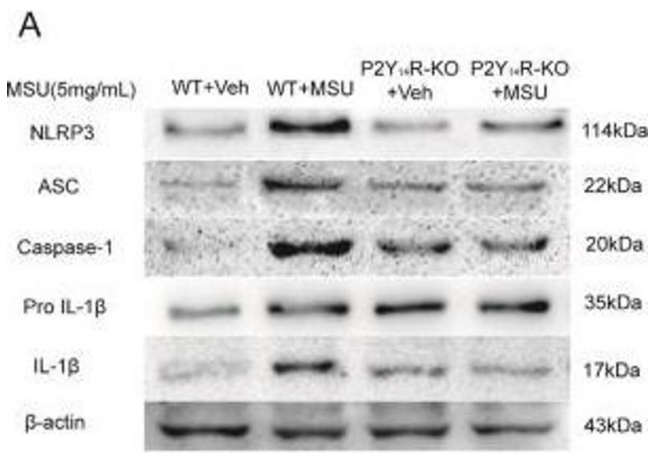
Image 1. Decreased cAMP exaggerated acute gouty arthritis in P2Y14R-KO rats.SQ22536, an adenylate cyclase (AC) inhibitor, was used in our study to reduce cAMP levels in P2Y14R-KO rats. Intra-articular administration of SQ22536 was given to P2Y14R-KO rats prior to MSU model. a The intracellular cAMP level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



Western Blotting

Image 2. Rat lung lysates probed with Caspase-1 p20 Polyclonal Antibody, Unconjugated at 1:300 dilution and 4˚C overnight incubation. Followed by conjugated secondary antibody incubation at 1:10000 for 60 min at 37˚C.



Western Blotting

Image 3. NLRP3 inflammasome activation was involved in P2Y14R deficiency.a The NLRP3 inflammasome activation and IL-1β mutation in synovium was inhibited in P2Y14R-KO rats detected by western blotting. The relative optical density was exhibited in the supplementary materials (n=4). b Immunofluorescence assay confirmed that MSU-induced NLRP3 inflammasome activation in synovial tissue of WT but not P2Y14R-KO rats. 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. c The expression of NLRP3 inflammasome activation was inhibited under P2Y14R knockdown. P2Y14R siRNA was used to transfect THP-1 cells for 48h, followed by MSU stimulation for 12h. The relative optical density was exhibited in the supplementary materials (n=4). d ELISA kit data showed that the release of IL-1β decreased when

Images

P2Y14R was knockdown with siRNA. e Immunofluorescence assay revealed that MSU administration could not induce the NLRP3 inflammasome activation anymore in siP2Y14R THP-1 cells. 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. f The intracellular cAMP level in synovial tissue increased in P2Y14R-KO rats compared WT ones (n=6). g The intracellular cAMP level in THP-1 cells increased under P2Y14R knockdown (n=4). The data were presented as means ± SDs. One-way analysis of variance (ANOVA) with Tukey multiple comparison test was performed. Compared with WT/NC+vehicle group: #P<0.05, ##P<0.01, ###P<0.001. Compared with WT/NC+MSU group: *P<0.05, **P<0.01, ***P<0.001 (n=4). - figure provided by CiteAb. Source: PMID32457291

Please check the product details page for more images. Overall 6 images are available for ABIN5675787.