

ARG57293 anti-Caspase 1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Caspase 1
Tested Reactivity	Hu, Ms
Predict Reactivity	Rat
Tested Application	ICC/IF, IHC-P, IP, WB
Specificity	This antibody reacts to full-length and cleaved form of caspase 1 protein.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Caspase 1
Species	Human
Immunogen	Recombinant Protein of Caspase 1.
Conjugation	Un-conjugated
Alternate Names	Caspase-1; Interleukin-1 beta-converting enzyme; IL-1 beta-converting enzyme; CASP-1; ICE; IL-1BC; Interleukin-1 beta convertase; P45; IL1BC; p45; EC 3.4.22.36

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:25 - 1:200
	IHC-P	1:25 - 1:200
	IP	1:25 - 1:100
	WB	1:250 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

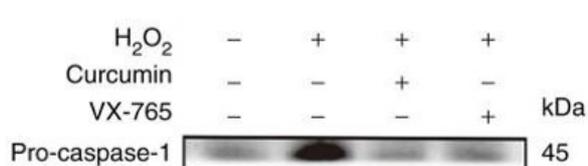
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	1X PBS, 0.025% Sodium azide, 0.025% Thimerosal and 2.5% BSA
Preservative	0.025% Sodium azide and 0.025% Thimerosal
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CASP1
Gene Full Name	caspase 1, apoptosis-related cysteine peptidase
Background	Caspase 1 is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2012]
Function	Caspase 1: 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. Upon inflammasome activation, during DNA virus infection but not RNA virus challenge, controls antiviral immunity through the cleavage of CGAS, rendering it inactive (PubMed:28314590). In apoptotic cells, cleaves SPHK2 which is released from cells and remains enzymatically active extracellularly (PubMed:20197547). [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30330 Pyroptosis Antibody Panel ARG30331 NLRP3 Inflammasome Antibody Panel ARG30332 NLRC4 Inflammasome Antibody Panel Related products: Caspase 1 antibodies; Caspase 1 ELISA Kits; Caspase 1 Duos / Panels; Anti-Rabbit IgG secondary antibodies; Related news: Exploring Antiviral Immune Response RIP1 activation and pathogenesis of NASH
Research Area	Pyroptosis Study antibody; NLRP3 Inflammasome Study antibody; NLRC4 Inflammasome Study antibody
Calculated Mw	45 kDa

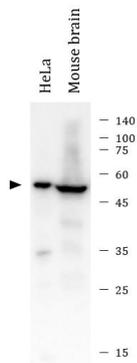
Images



ARG57293 anti-Caspase 1 antibody WB image

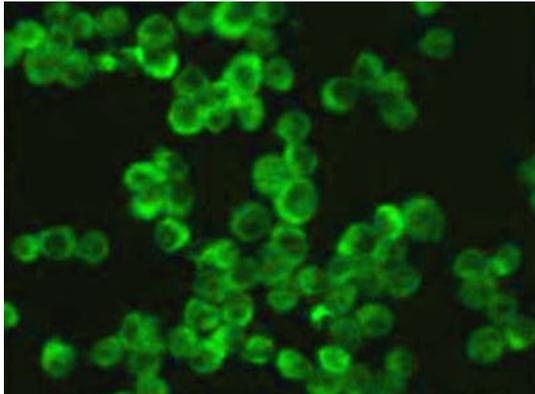
Western blot: HUVECs stained with ARG57293 anti-Caspase 1 antibody at 1:1000 dilution.

From Yulin Yuan et al. Mol Med Rep. (2022), [doi: 10.3892/mmr.2022.12730](https://doi.org/10.3892/mmr.2022.12730), Fig. 3.(A).



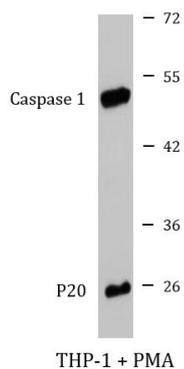
ARG57293 anti-Caspase 1 antibody WB image

Western blot: 10 μ g of HeLa and 20 μ g of Mouse brain lysates stained with ARG57293 anti-Caspase 1 antibody at 1:1000 dilution.



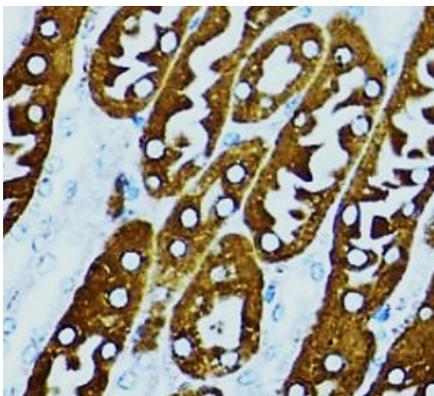
ARG57293 anti-Caspase 1 antibody ICC/IF image

Immunofluorescence: Raw264.7 cells stained with ARG57293 anti-Caspase 1 antibody at 1:100 dilution.



ARG57293 anti-Caspase 1 antibody WB image

Western blot: 25 μ g of cell lysate from PMA treated THP-1 cells were stained with ARG57293 anti-Caspase 1 antibody at 1:1000 dilution.



ARG57293 anti-Caspase 1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse kidney tissue stained with ARG57293 anti-Caspase 1 antibody at 1:100 dilution.

ARG57293 anti-Caspase 1 antibody IP image

Immunoprecipitation: 200 µg extracts of THP-1 cells
Immunoprecipitated and stained with ARG57293 anti-Caspase 1
antibody at 1:1000 dilution.

