ARG10644
anti-Caspase 1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Caspase 1
Tested Reactivity	Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Caspase 1
Species	Mouse
Immunogen	A synthetic peptide corresponding to a sequence within the p20 subunit of mouse caspase 1 protein (137-157aa LEKAQKLWKENPSEIYPIMNT), the sequence is different from the rat caspase 1 protein sequence by three amino acids.
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
WB	0.5 - 1 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

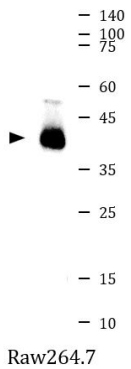
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.025% Sodium azide and 2.5% BSA.
Preservative	0.025% Sodium azide
Stabilizer	2.5% BSA
Concentration	0.5 mg/ml
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 or below. 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

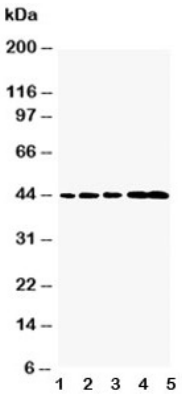
Database links	GeneID: 12362 Mouse Swiss-port # P29452 Mouse
Gene Symbol	Casp1
Gene Full Name	caspase 1
Background	Caspase 1 is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist 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 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
PTM	The two subunits are derived from the precursor sequence by an autocatalytic mechanism.
Cellular Localization	Cytoplasm

Images



ARG10644 anti-Caspase 1 antibody WB image

Western blot: 20 µg of Raw264.7 cell lysate stained with ARG10644 anti-Caspase 1 antibody at 1:1000 dilution.



ARG10644 anti-Caspase 1 antibody WB image

Western blot: 1) Rat brain, 2) Rat spleen, 3) Mouse brain, 4) Mouse spleen, and 5) Mouse testis stained with ARG10644 anti-Caspase 1 antibody.