

Datasheet for ABIN5518669

anti-Caspase 1 antibody (N-Term)

1 Image

21 Publications



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Overview

Quantity:	100 µg
Target:	Caspase 1 (CASP1)
Binding Specificity:	AA 137-157, N-Term
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Caspase 1 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Purpose:	Anti-Caspase-1(P20)/CASP1 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of mouse CASP1, different from the related rat sequence by three amino acids.
Sequence:	LEKAQKLWKE NPSEIYPIMN T
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Caspase-1 (P20)/CASP1 Antibody (ABIN5518669). Tested in WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: Caspase 1 (CASP1)

Alternative Name: CASP1 ([CASP1 Products](#))

Background: Synonyms: Caspase-1, CASP-1, 3.4.22.36, Interleukin-1 beta convertase, IL-1BC, Interleukin-1 beta-converting enzyme, ICE, IL-1 beta-converting enzyme, p45, Caspase-1 subunit p20, Caspase-1 subunit p10, Casp1, Il1bc,

Tissue Specificity: High level expression seen in spleen and lung, low level expression seen in brain, heart, liver, kidney, testis and skeletal muscle.

Background: Caspase 1 is a cysteine protease that regulates inflammatory processes through its capacity to process and activate the interleukin-1-beta, IL18, and IL33 precursor proteins. It belongs to a family of cysteine proteases known as caspases that always cleave proteins following an aspartic acid residue. The Caspase1 gene consists of 10 exons spanning at least 10.6 kb. The Caspase 1 gene is mapped to 11q23, a site frequently involved in rearrangement in human cancers, including a number of leukemias and lymphomas, by Southern DNA blot analysis of rodent-human hybrids and by in situ hybridization to normal human metaphase chromosomes. Caspase 1 has been shown to induce cell necrosis or pyroptosis and may function in various developmental stages.

Sequence Similarities: Belongs to the peptidase C14A family.

Molecular Weight: 46 kDa

UniProt: [P29452](#)

Pathways: [Apoptosis](#), [Interferon-gamma Pathway](#), [Positive Regulation of Endopeptidase Activity](#), [Inflammasome](#)

Application Details

Application Notes: Western blot, 0.1-0.5 µg/mL, Mouse, Rat

1. Fernandes-Alnemri, T., Litwack, G., Alnemri, E. S. Mch2, a new member of the apoptotic Ced-3/Ice cysteine protease gene family. Cancer Res. 55: 2737-2742, 1995. 2. Nikolaev, A., McLaughlin, T., O'Leary, D. D. M., Tessier-Lavigne, M. APP binds DR6 to trigger axon pruning and neuron death via distinct caspases Nature 457: 981-989, 2009. 3. Orth, K., Chinnaiyan, A. M., Garg, M., Froelich, C. J., Dixit, V. M. The CED-3/ICE-like protease Mch2 is activated during apoptosis and cleaves the death substrate lamin A. J. Biol. Chem. 271: 16443-16446, 1996.

Application Details

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and IHC(F).

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 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na₂HPO₄.

Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in: Xu, Liu, Zhang, Wang, Wang, Yang, Huo, Sun: "Apoptosis-related protein expression in rabbits with blast brain injury following early hyperbaric oxygen therapy." in: **Neural regeneration research**, Vol. 7, Issue 17, pp. 1318-24, (2015) ([PubMed](#)).

Lu, Yuan, Ou, Cai, Wang, Sun, Zhang: "Autophagy and apoptosis during adult adipose-derived stromal cells differentiation into neuron-like cells in vitro." in: **Neural regeneration research**, Vol. 7, Issue 16, pp. 1205-12, (2015) ([PubMed](#)).

Chen, Peng, Rowat, Gao, Zhang, Wang, Zhang, Wang, Qu: "The effect of concentration and duration of normobaric oxygen in reducing caspase-3 and -9 expression in a rat-model of focal cerebral ischaemia." in: **Brain research**, Vol. 1618, pp. 205-11, (2015) ([PubMed](#)).

Ji, Yan, Li, Lai, Liu: "Therapeutic effects of intrathecal versus intravenous monosialoganglioside against bupivacaine-induced spinal neurotoxicity in rats." in: **Biomedicine & pharmacotherapy = Biomedicine & pharmacotherapy**, Vol. 69, pp. 311-6, (2015) ([PubMed](#)).

Wu, Wang, Hou: "Alpha B-crystallin improved survival of retinal ganglion cells in a rat model of acute ocular hypertension." in: **Neural regeneration research**, Vol. 7, Issue 19, pp. 1493-7, (2015)

) ([PubMed](#)).

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

Images



Western Blotting

Image 1. Anti-Caspase-1(P20) antibody, Western blotting
Lane 1: Rat Brain Tissue Lysate Lane 2: Rat Spleen Tissue Lysate Lane 3: Mouse Brain Tissue Lysate Lane 4: Mouse Spleen Tissue Lysate Lane 5: Mouse Testis Tissue Lysate