

CASP1 Antibody

Catalog No: #32096

Package Size: #32096-1 50ul #32096-2 100ul

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

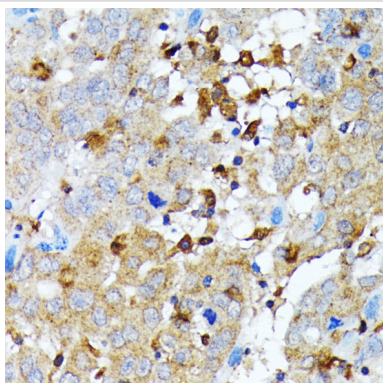
Description

Product Name	CASP1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IHC,IF
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total CASP1 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human CASP1.
Conjugates	Unconjugated
Target Name	CASP1
Other Names	CASP1; ICE; IL1BC; P45; Caspase-1
Accession No.	Swiss-Prot:P29466NCBI Gene ID:834
SDS-PAGE MW	45KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

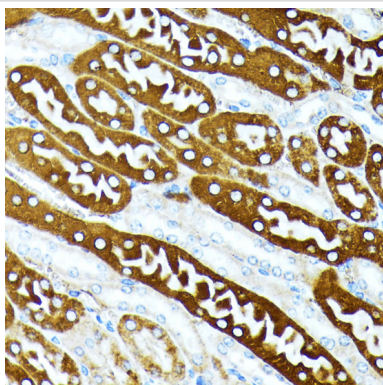
Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200IF□1:50 - 1:200IP□1:50 - 1:100

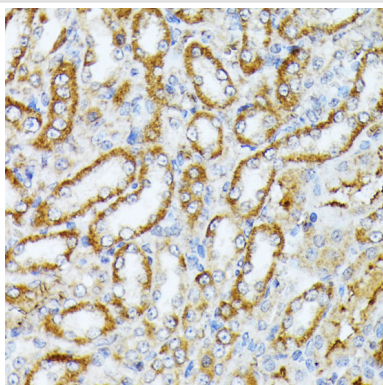
Images



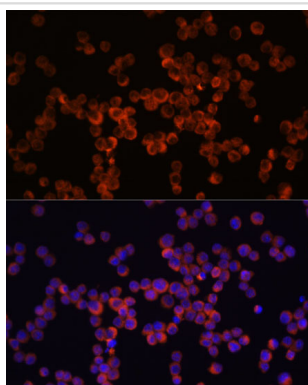
Immunohistochemistry of paraffin-embedded human liver cancer using Caspase-1 antibody at dilution of 1:100 (40x lens).



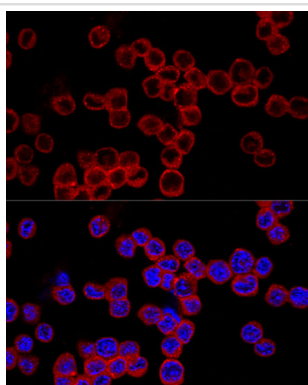
Immunohistochemistry of paraffin-embedded mouse kidney using Caspase-1 antibody at dilution of 1:100 (40x lens).



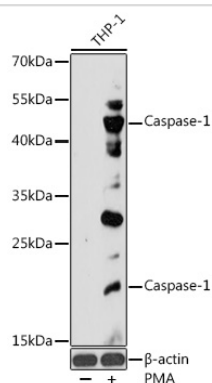
Immunohistochemistry of paraffin-embedded rat kidney using Caspase-1 antibody at dilution of 1:100 (40x lens).



Immunofluorescence analysis of Raw264.7 cells using Caspase-1 Polyclonal antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Confocal immunofluorescence analysis of Raw264.7 cells using Caspase-1 Polyclonal antibody at dilution of 1:200. Blue: DAPI for nuclear staining.



Western blot analysis of extracts of THP-1 cells, using Caspase-1 antibody at 1:1000 dilution. THP-1 cells were treated by PMA (80 nM) at 37°C for overnight.

Background

Caspase-1, or interleukin-1 β converting enzyme (ICE/ICE α), is a class I cysteine protease, which also includes caspases -4, -5, -11, and -12. Caspase-1 cleaves inflammatory cytokines such as pro-IL-1 β and interferon- γ inducing factor (IL-18) into their mature forms (1,2). Like other caspases, caspase-1 is proteolytically activated from a proenzyme to produce a tetramer of its two active subunits, p20 and p10. Caspase-1 has a large amino-terminal pro-domain that contains a caspase recruitment domain (CARD). Overexpression of caspase-1 can induce apoptosis (3). Mice deficient in caspase-1, however, have no overt defects in apoptosis but do have defects in the maturation of pro-IL-1 β and are resistant to endotoxic shock (4,5). At least six caspase-1 isoforms have been identified, including caspase-1 α , β , γ , δ , ϵ and ζ (6). Most caspase-1 isoforms (α , β , γ and δ) produce products between 30-48 kDa and induce apoptosis upon over-expression. Caspase-1 ϵ typically contains only the p10 subunit, does not induce apoptosis and may act as a dominant negative. The widely expressed ζ isoform of caspase-1 induces apoptosis and lacks 39 amino-terminal residues found in the α isoform (6). Activation of caspase-1 occurs through an oligomerization molecular platform designated the "inflammasome" that includes caspase-5, Pycard/Asc, and NALP1 (7).

Published Papers

et al., Alpha-lipoic acid alleviates NAFLD and triglyceride accumulation in liver via modulating hepatic NLRP3 inflammasome activation pathway in type 2 diabetic rats. In Food Sci Nutr on 2021 Mar 13 by Chih-Yuan Ko, Yangming Martin Lo, et al..PMID: 34026086, , (2021)

[PMID:34026086](#)

Jiaying Liu;Yuanfan Chen;Jing Zhang;Yun Zheng;Yun An;Chenglai Xia;Yonger Chen;Song Huang;Shaozhen Hou;Dong Deng et al., Vitexin alleviates MNNG-induced chronic atrophic gastritis via inhibiting NLRP3 inflammasome., , (2025)

[PMID:39716512](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.