Product Datasheet

CASP1 Antibody

Catalog No: #32096

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

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

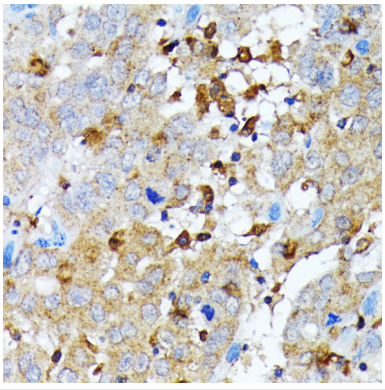
Description

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.
Target Name	CASP1
Other Names	CASP1; ICE; IL1BC; P45; Caspase-1
Accession No.	Swiss-Prot:P29466NCBI Gene ID:834
Uniprot	P29466
GeneID	834;
SDS-PAGE MW	45KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

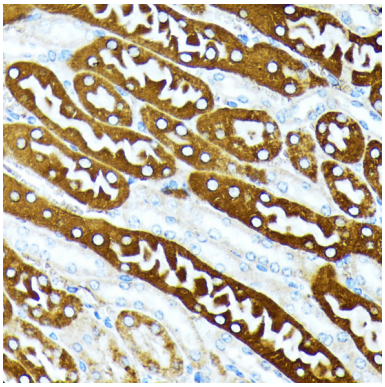
Application Details

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

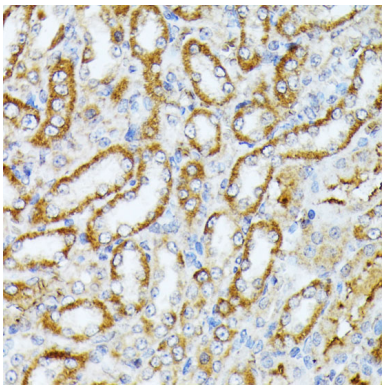
Images



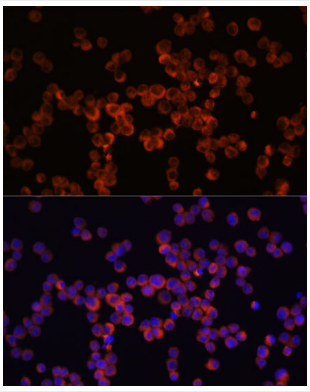
Immunohistochemistry of paraffin-embedded human liver cancer using Caspase-1 at dilution of 1:100 (40x lens).



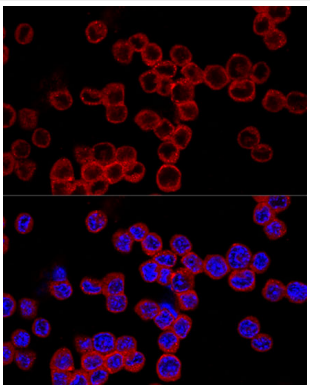
Immunohistochemistry of paraffin-embedded mouse kidney using Caspase-1 at dilution of 1:100 (40x lens).



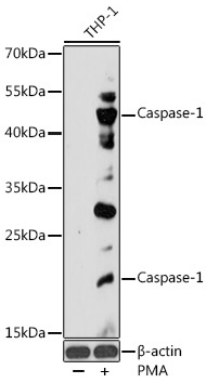
Immunohistochemistry of paraffin-embedded rat kidney using Caspase-1 at dilution of 1:100 (40x lens).



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



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



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

Background

Caspase-1, or interleukin-1? converting enzyme (ICE/ICEα), 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? 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-1β 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).

Note: This product is for in vitro research use only