



Datasheet for ABIN7146946
anti-Caspase 4 antibody (AA 82-226)



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3 Images

Overview

Quantity:	100 µg
Target:	Caspase 4 (CASP4)
Binding Specificity:	AA 82-226
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Caspase 4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Caspase-4 protein (82-226AA)
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	>95%, Protein G purified

Target Details

Target:	Caspase 4 (CASP4)
Alternative Name:	CASP4 (CASP4 Products)
Background:	Background: Inflammatory caspase (PubMed:7797510, PubMed:23516580, PubMed:25119034). Essential effector of NLRP3 inflammasome-dependent CASP1 activation

Target Details

and IL1B and IL18 secretion in response to non-canonical activators, such as UVB radiation, cholera enterotoxin subunit B and cytosolic LPS (PubMed:22246630, PubMed:26174085, PubMed:26173988, PubMed:26508369, PubMed:25964352). Independently of NLRP3 inflammasome and CASP1, promotes pyroptosis, through GSDMD cleavage and activation, and IL1A, IL18 and HMGB1 release in response to non-canonical inflammasome activators (PubMed:24879791, PubMed:25964352). Plays a crucial role in the restriction of Salmonella typhimurium replication in colonic epithelial cells during infection (PubMed:25121752). In later stages of the infection, LPS from cytosolic Salmonella triggers CASP4 activation, which ultimately results in pyroptosis of infected cells and their extrusion into the gut lumen, as well as in IL18 secretion. Pyroptosis limits bacterial replication, while cytokine secretion promotes the recruitment and activation of immune cells and triggers mucosal inflammation. Involved in LPS-induced IL6 secretion, this activity may not require caspase enzymatic activity (PubMed:26508369). Involved in cell death induced by endoplasmic reticulum stress and by treatment with cytotoxic APP peptides found Alzheimer's patient brains (PubMed:15123740, PubMed:22246630, PubMed:23661706). Activated by direct binding to LPS without the need of an upstream sensor (PubMed:25119034). Does not directly process IL1B (PubMed:7743998, PubMed:7797592, PubMed:7797510).

Aliases: Apoptotic cysteine protease Mih1/TX antibody, CASP-4 antibody, CASP4 antibody, CASP4_HUMAN antibody, Caspase 4 apoptosis related cysteine peptidase antibody, Caspase-4 subunit 2 antibody, Caspase4 antibody, ICE(rel)-II antibody, ICE(rel)II antibody, ICEREL II antibody, ICH2 antibody, Mih1/TX antibody, Protease ICH-2 antibody, Protease TX antibody, TX antibody

UniProt: [P49662](#)

Pathways: [Apoptosis](#), [Caspase Cascade in Apoptosis](#), [Positive Regulation of Endopeptidase Activity](#)

Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000, IHC:1:500-1:1000, IF:1:50-1:500,

Restrictions: For Research Use only

Handling

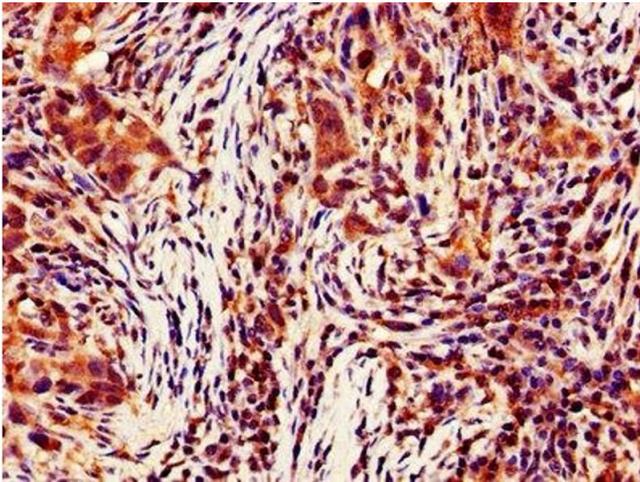
Format: Liquid

Buffer: Preservative: 0.03 % Proclin 300
Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4

Handling

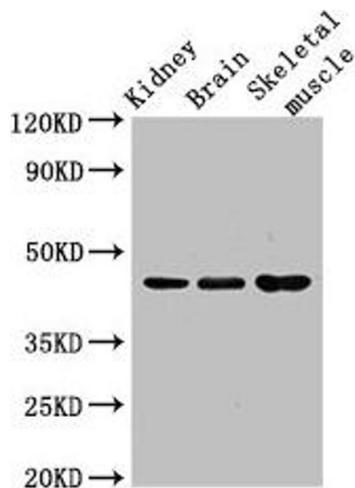
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



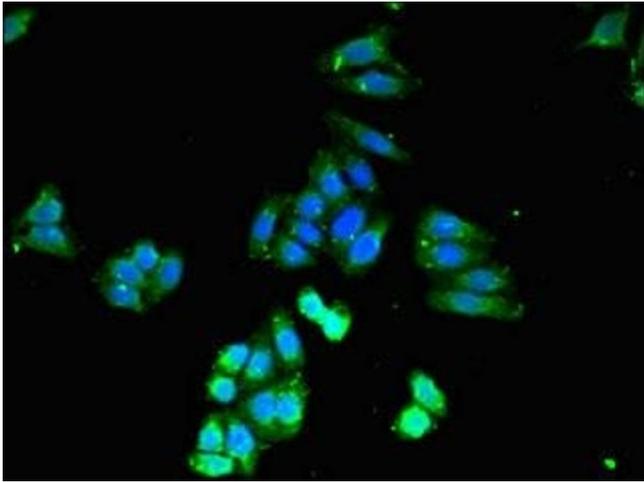
Immunohistochemistry

Image 1. IHC image of ABIN7146946 diluted at 1:700 and staining in paraffin-embedded human pancreatic cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Western Blotting

Image 2. Western Blot Positive WB detected in: Mouse kidney tissue, Mouse brain tissue, Mouse skeletal muscle tissue All lanes: CASP4 antibody at 3.5 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 44, 37, 14, 31, 19 kDa Observed band size: 44 kDa



Immunofluorescence

Image 3. Immunofluorescent analysis of HepG2 cells using ABIN7146946 at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)