Datasheet for ABIN7146947

anti-Caspase 4 antibody (AA 82-226) (Biotin)

Go to Product page

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 conjugated to Biotin
Application:	ELISA

Product Details

Immunogen:	Recombinant Human Caspase-4 protein (82-226AA)
Isotype:	IgG
Cross-Reactivity:	Human
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:	Optimal working dilution should be determined by the investigator.
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.