

Datasheet for ABIN7384346 **anti-Caspase 4 antibody**

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Overview

Quantity:	50 µL
Target:	Caspase 4 (CASP4)
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Monoclonal
Conjugate:	This Caspase 4 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Clone:	R09-7H9
Isotype:	IgG
Purification:	Affinity Purified

Target Details

Target:	Caspase 4 (CASP4)
Alternative Name:	Caspase 11 (CASP4 Products)
Background:	Caspl,ich-3,CASP-4,Casp11,CASP-11,Proinflammatory caspase (PubMed:8702803, PubMed:9038361, PubMed:25119034). Essential effector of NLRP3 inflammasome-dependent CASP1 activation and IL1B and IL18 secretion in response to non-canonical activators, such as UVB radiation, cholera enterotoxin subunit B and cytosolic LPS, as well as infection with Gram-negative bacteria (PubMed:22002608). Independently of NLRP3 inflammasome and CASP1,

Target Details

promotes pyroptosis, through GSDMD cleavage and activation, and IL1A, IL18 and HMGB1 release in response to non-canonical inflammasome activators (PubMed:22002608, PubMed:26320999, PubMed:26375003). Plays a crucial role in the restriction of Salmonella typhimurium replication in colonic epithelial cells during infection. In later stages of the infection (>3 days post infection), LPS from cytosolic Salmonella triggers CASP4 activation, which ultimately results in the pyroptosis of the 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 (PubMed:25121752). Involved in LPS-induced IL6 secretion, this activity may not require caspase enzymatic activity . Involved in cell death induced by endoplasmic reticulum stress . Activated by direct binding to LPS without the need of an upstream sensor (PubMed:25119034). Does not directly process IL1B (PubMed:8702803, PubMed:9038361). During non-canonical inflammasome activation, cuts CGAS and may play a role in the regulation of antiviral innate immune activation (PubMed:28314590).

Molecular Weight: Observed_MW: 43/38kDa
Calculated_MW: 43kDa

Gene ID: 12363

UniProt: [P70343](#)

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

Application Details

Application Notes: WB 1:500-1:1000

Restrictions: For Research Use only

Handling

Concentration: 300 µg/mL

Buffer: 50 mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40 % Glycerol, 0.01 % Sodium azide and 0.05 % BSA

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Handling

Storage Comment: Store at -20°C. Avoid freeze / thaw cycles.