

Product datasheet for **TA383879S**

Casp4 Rabbit Monoclonal Antibody [Clone ID: R09-7H9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R09-7H9
Applications:	IP, WB
Recommended Dilution:	WB: 1/1000 IP: 1/20
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	Recombinant protein of mouse Caspase-11
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 43 kDa; Observed MW: 43,38,25 kDa
Gene Name:	caspase 4, apoptosis-related cysteine peptidase
Database Link:	Entrez Gene 12363 Mouse P70343



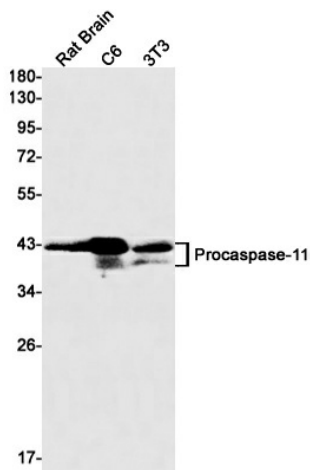
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Background:

Swiss-Prot Acc.P70343.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, 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).

Synonyms:

CASP-4; ICE(rel)-II; ICE(rel)II; ICEREL-II; ICH-2; ICH2; Mih1/TX; TX

Product images:

Western blot detection of Caspase-11 in C6,3T3,Hela cell lysates using Caspase-11 Rabbit mAb(1:1000 diluted).Predicted band size:43kDa.Observed band size: 43,38,25kDa.