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# Caspase-11 (YD21042) Rabbit mAb

货号: **AYD12404**

## 产品信息

反应	Mouse
宿主	Rabbit
克隆性	Monoclonal
预测反应	
应用	WB
推荐浓度	
理论分子量	43kDa
实测分子量	
形式	Liquid
保存条件	Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.75% BSA, 50% glycerol, pH7.3.
偶联物	Unconjugated
阳性对照	
细胞定位	Cytoplasm, cytosol, Endoplasmic reticulum membrane, Mitochondrion, Inflammasome, Secreted
纯化	亲和纯化

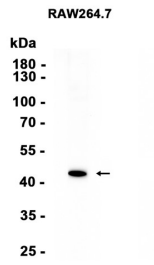
## 抗原信息

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## 靶点信息

研究背景	<p>Inflammatory caspase that acts as the effector of the non-canonical inflammasome by mediating lipopoly saccharide (LPS)-induced pyroptosis (PubMed:22002608, PubMed:23348507, PubMed:23887873, PubMed:24031018, PubMed:25119034, PubMed:30135078, PubMed:37001519, PubMed:38632402). Also indirectly activates the NLRP3 and NLRP6 inflammasomes (PubMed:26320999, PubMed:30392956, PubMed:37001519). Acts as a thiol protease that cleaves a tetrapeptide after an Asp residue at position P1: catalyzes cleavage of CGAS and GSDMD (PubMed:26375003, PubMed:28314590, PubMed:30392956, PubMed:38632402). In contrast to its human ortholog, does not cleave IL18 (PubMed:37993712, PubMed:37993714). Effector of the non-canonical inflammasome independently of NLRP3 inflammasome and CASP1: the non-canonical inflammasome promotes pyroptosis through GSDMD cleavage without involving secretion of cytokine IL1B and IL18 (PubMed:22002608, PubMed:22895188, PubMed:23348507, PubMed:23887873, PubMed:24031018, PubMed:26320999, PubMed:26375003, PubMed:30135078, PubMed:30589883). In the non-canonical inflammasome, CASP4/CASP11 is activated by direct binding to the lipid A moiety of LPS without the need of an upstream sensor (PubMed:22002608, PubMed:23348507, PubMed:25119034, PubMed:37001519, PubMed:38632402). LPS-binding promotes CASP4/CASP11 activation and CASP4/CASP11-mediated cleavage of GSDMD, followed by pyroptosis of infected cells and their extrusion into the gut lumen (PubMed:22002608, PubMed:23348507, PubMed:25119034, PubMed:38632402). Also indirectly promotes secretion of mature cytokines (IL1A, IL18 and HMGB1) downstream of GSDMD-mediated pyroptosis via activation of the NLRP3 and NLRP6 inflammasomes (By similarity). Involved in NLRP3-dependent CASP1 activation and IL1B and IL18 secretion in response to non-canonical activators, such as UVB radiation or cholera enterotoxin (PubMed:26320999). Involved in NLRP6 inflammasome-dependent activation in response to lipoteichoic acid (LTA), a cell-wall component of Gram-positive bacteria, which leads to CASP1 activation and IL1B and IL18 secretion (PubMed:30392956). Involved in LPS-induced IL6 secretion; this activity may not require caspase enzymatic activity (By similarity). The non-canonical inflammasome is required for innate immunity to cytosolic, but not vacuolar, bacteria (PubMed:23348507). Plays a crucial role in the restriction of S.typhimurium replication in colonic epithelial cells during infection (PubMed:25121752, PubMed:26375003, PubMed:34671164). Activation of the non-canonical inflammasome in brain endothelial cells can lead to excessive pyroptosis, leading to blood-brain barrier breakdown (PubMed:38632402). Pyroptosis limits bacterial replication, while cytokine secretion promotes the recruitment and activation of immune cells and triggers mucosal inflammation (PubMed:25121752). May also act as an activator of adaptive immunity in dendritic cells, following activation by oxidized phospholipid 1-palmitoyl-2-arachidonoyl-sn-glycero-3-phosphorylcholine, an oxidized phospholipid (oxPAPC) (PubMed:27103670). Cleavage of GSDMD is not strictly dependent on the consensus cleavage site but depends on an exosite interface on CASP4/CASP11 that recognizes and binds the Gasdermin-D, C-terminal (GSDMD-CT) part (PubMed:32109412, PubMed:32554464). In contrast, it 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)</p>
基因ID	3134
基因名	Casp4
Swiss	P70343 ( <a href="https://www.uniprot.org/uniprotkb/P70343/entry">https://www.uniprot.org/uniprotkb/P70343/entry</a> )
别名	Caspase-11 (YD21042),Caspase-11 (YD21042) Rabbit mAb,Casp4,Caspase-11,Protease ICH-3,Casp11,Casp1

## 产品验证



### 实验步骤

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