

Store at
-20C
#14340**Caspase-11 (17D9) Rat mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	M	Endogenous	38, 43	Rat IgG2a	#P70343	12363

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity Source / Purification

Caspase-11 (17D9) Rat mAb recognizes endogenous levels of total caspase-11 protein.

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the p30 subunit terminus of mouse caspase-11 protein.

Background

Caspases are a family of aspartate-specific cysteine-dependent proteases that play a critical role in apoptosis as well as inflammatory responses. Pro-inflammatory caspases include caspase-1 and mouse caspase-11 (1). Caspase-11 has about 60% and 55% identity to human caspases-4 and -5, respectively. Caspase-1 cleaves inflammatory cytokines such as pro-IL-1 β and IL-18 into their mature forms (2). It is activated by proteolytic cleavage producing a tetramer of its two active subunits, p20 and p10. Canonical activation of caspase-1 occurs through several complex molecular platforms designated "inflammasomes" that include Pycard/Asc, nucleotide-binding oligomerization receptors (NLRs), and AIM2 (3, 4). Non-canonical activation of caspase-1 is triggered by caspase-11, which is transcriptionally induced by toll-like receptor ligands including LPS. Activation of this pathway induces inflammatory cytokines as well as pyroptosis, a form of programmed cell death (5-9).

Background References

- Ng, T.M. and Monack, D.M. (2013) *Cell Host Microbe* 14, 9-14.
- Thornberry, N.A. et al. (1992) *Nature* 356, 768-74.
- Martinon, F. et al. (2002) *Mol Cell* 10, 417-26.
- Lamkanfi, M. and Dixit, V.M. (2014) *Cell* 157, 1013-22.
- Hagar, J.A. et al. (2013) *Science* 341, 1250-3.
- Kayagaki, N. et al. (2013) *Science* 341, 1246-9.
- Aachoui, Y. et al. (2013) *Science* 339, 975-8.
- Broz, P. et al. (2012) *Nature* 490, 288-91.
- Kayagaki, N. et al. (2011) *Nature* 479, 117-21.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

M: Mouse

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