Caspase-1 (PTR1290) Mouse mAb

CatalogNo: YM4685

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Rat,Horse,Pig,

Applications
- WB,IF,ELISA

MW
- 45kD (Calculated)

45kD (Observed)

Isotype
- IgG2a,Kappa

Recommended Dilution Ratios

WB 1:500-2000
IF 1:100-500
ELISA 1:1000-5000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PTR1290

Immunogen Information

Immunogen	Synthesized peptide derived from human Caspase-1 AA range: 350-404
Specificity	This antibody detects endogenous levels of Caspase-1 protein.

Target Information

Gene name CASP1 IL1BC IL1BCE

Protein Name Caspase-1

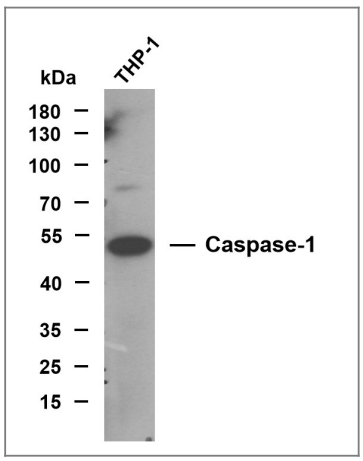
Organism	Gene ID	UniProt ID
Human	834;	P29466;
Mouse	12362;	P29452;
Rat		P43527;

Cellular Localization Cytoplasm

Tissue specificity Expressed in larger amounts in spleen and lung. Detected in liver, heart, small intestine, colon, thymus, prostate, skeletal muscle, peripheral blood leukocytes, kidney and testis. No expression in the brain.

Function Thiol protease involved in a variety of inflammatory processes by proteolytically cleaving other proteins, such as the precursors of the inflammatory cytokines interleukin-1 beta (IL1B) and interleukin 18 (IL18) as well as the pyroptosis inducer Gasdermin-D (GSDMD), into active mature peptides . Plays a key role in cell immunity as an inflammatory response initiator: once activated through formation of an inflammasome complex, it initiates a pro-inflammatory response through the cleavage of the two inflammatory cytokines IL1B and IL18, releasing the mature cytokines which are involved in a variety of inflammatory processes . Cleaves a tetrapeptide after an Asp residue at position P1 . Also initiates pyroptosis, a programmed lytic cell death pathway, through cleavage of GSDMD . In contrast to cleavage of interleukins IL1B and IL1B, recognition and cleavage of GSDMD is not strictly dependent on the consensus cleavage site but depends on an exosite interface on CASP1 that recognizes and binds the Gasdermin-D, C-terminal (GSDMD-CT) part . Upon inflammasome activation, during DNA virus infection but not RNA virus challenge, controls antiviral immunity through the cleavage of CGAS, rendering it inactive . In apoptotic cells, cleaves SPHK2 which is released from cells and remains enzymatically active extracellularly . ; [Isoform Delta]: Apoptosis inactive. ; [Isoform Epsilon]: Apoptosis inactive.

Validation Data



Whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-Caspase-1 (PTR1290) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: THP-1

Contact information

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Please scan the QR code to access additional product information:
Caspase-1 (PTR1290) Mouse mAb