Caspase-1 (PTR1317) Mouse mAb(HRP)

CatalogNo: YM2210

Key Features

Host Species	Reactivity	Applications
• Mouse	• Human,Mouse,Rat,Horse,Pig	• WB,IF,ELISA
MW	**Isotype**	**Conjugate**
• 45kD (Observed)	• IgG2b, Kappa	• HRP

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

Recommended Dilution Ratios

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

Basic Information

Clonality	Monoclonal
Clone Number	PTR1317

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

Contact information

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