Recombinant Human CASP1 Protein (N120-D297, A317-H404), Tag Free

Cat. No. CASP1-1265H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CASP1(N120-D297, A317-H404 end) (T388A) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	N120-D297, A317-H404
Description	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 proinflammatory 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

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	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.
Form	Liquid
Endotoxin	< 0.01 EU per μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	CASP1 caspase 1, apoptosis-related cysteine peptidase [Homo sapiens (human)]
Official Symbol	CASP1
Synonyms	CASP1; caspase 1, apoptosis-related cysteine peptidase; caspase 1, apoptosis related cysteine peptidase (interleukin 1, beta, convertase), caspase 1, apoptosis related cysteine protease (interleukin 1, beta, convertase), IL1BC; caspase-1; caspase 1; ICE; interleukin 1; beta; convertase; IL1B-convertase; CASP1 nirs variant 1; IL-1 beta-converting enzyme; interleukin 1, beta, convertase; interleukin 1-B

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	converting enzyme; caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase); P45; IL1BC;
Gene ID	834
mRNA Refseq	NM_001223
Protein Refseq	NP_001214
MIM	147678
UniProt ID	P29466

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