

## Recombinant Human CASP4

**Cat. No.** CASP4-26607TH    **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant full length protein (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>         | <p>This gene encodes a protein that is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes composed of a prodomain and a large and small protease subunit. Activation of caspases requires proteolytic processing at conserved internal aspartic residues to generate a heterodimeric enzyme consisting of the large and small subunits. This caspase is able to cleave and activate its own precursor protein, as well as caspase 1 precursor. When overexpressed, this gene induces cell apoptosis. Alternative splicing results in transcript variants encoding distinct isoforms.</p> |
| <b>Tissue specificity</b>  | Widely expressed, with highest levels in spleen and lung. Moderate expression in heart and liver, low expression in skeletal muscle, kidney and testis. Not found in the brain.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Biological activity</b> | 5000 units/mg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Form</b>                | Lyophilised:Reconstitute to 1 unit per µl in PBS containing 15% glycerol. Aliquot and store immediately at -80°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|                              |                                                                  |
|------------------------------|------------------------------------------------------------------|
| <b>Purity</b>                | >95% by SDS-PAGE                                                 |
| <b>Storage buffer</b>        | Preservative: None<br>Constituents: 15% Glycerol, PBS            |
| <b>Storage</b>               | Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles. |
| <b>Sequence Similarities</b> | Belongs to the peptidase C14A family. Contains 1 CARD domain.    |
| <b>Full Length</b>           | Full L.                                                          |

## GENE INFORMATION

|                            |                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | CASP4 caspase 4, apoptosis-related cysteine peptidase [ Homo sapiens ]                                                                    |
| <b>Official Symbol</b>     | CASP4                                                                                                                                     |
| <b>Synonyms</b>            | CASP4; caspase 4, apoptosis-related cysteine peptidase; caspase 4, apoptosis related cysteine protease; caspase-4; ICE(rel)II; ICH 2; TX; |
| <b>Gene ID</b>             | 837                                                                                                                                       |
| <b>mRNA Refseq</b>         | NM_001225                                                                                                                                 |
| <b>Protein Refseq</b>      | NP_001216                                                                                                                                 |
| <b>MIM</b>                 | 602664                                                                                                                                    |
| <b>Uniprot ID</b>          | P49662                                                                                                                                    |
| <b>Chromosome Location</b> | 11q22.2-q22.3                                                                                                                             |

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|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pathway</b>  | Apoptosis, organism-specific biosystem; Caspase cascade in apoptosis, organism-specific biosystem; Immune System, organism-specific biosystem; Innate Immune System, organism-specific biosystem; NOD1/2 Signaling Pathway, organism-specific biosystem; |
| <b>Function</b> | cysteine-type endopeptidase activity; peptidase activity;                                                                                                                                                                                                |

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