

# Recombinant Human PSMB2, His-tagged

**Cat. No.** PSMB2-30366TH **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Product Overview</b> | Recombinant full length protein, corresponding to amino acids 1-201 of Human Proteasome subunit beta type 2 with N terminal His tag, 21kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 1-201 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. The core structure is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. This gene encodes a member of the proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. |
| <b>Conjugation</b>      | HIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Form</b>             | Lyophilised:Reconstitute with 115 µl aqua dest.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Storage buffer</b>   | Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                 |                                                                                                                                                                                                                         |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | phosphate, 10mM Sodium chloride, pH 4.5                                                                                                                                                                                 |
| <b>Storage</b>                  | Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.                                                                                                                                   |
| <b>Sequences of amino acids</b> | MEYLIGIQGPDYVLVASDRVAASNIVQMKDDHDKMFKMSE KILLLCVGEAGDTVQFA<br>EYIQKNVQLYKMRNGYELSPT AAANFTRRNLDCLRSRTPYHVNLLLAGYDEHEGP<br>ALY YMDYLAALAKAPFAAHGYGAFLTLSILDRIYYTPTISRERAVELLRKCLEELQKRFI<br>LNLPTFSVRIIDKNGIHDLN SFPKQGS |
| <b>Sequence Similarities</b>    | Belongs to the peptidase T1B family.                                                                                                                                                                                    |
| <b>Full Length</b>              | Full L.                                                                                                                                                                                                                 |

## GENE INFORMATION

|                        |                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PSMB2 proteasome (prosome, macropain) subunit, beta type, 2 [ Homo sapiens ]                         |
| <b>Official Symbol</b> | PSMB2                                                                                                |
| <b>Synonyms</b>        | PSMB2; proteasome (prosome, macropain) subunit, beta type, 2; proteasome subunit beta type-2; HC7 I; |
| <b>Gene ID</b>         | 5690                                                                                                 |
| <b>mRNA Refseq</b>     | NM_001199779                                                                                         |
| <b>Protein Refseq</b>  | NP_001186708                                                                                         |
| <b>MIM</b>             | 602175                                                                                               |
| <b>Uniprot ID</b>      | P49721                                                                                               |

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| <b>Chromosome Location</b> | 1p34.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Pathway</b>             | APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem;<br>APC/C:Cdc20 mediated degradation of Securin, organism-specific biosystem;<br>APC/C:Cdc20 mediated degradation of mitotic proteins, organism-specific biosystem;<br>APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1, organism-specific biosystem; Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins, organism-specific biosystem; |
| <b>Function</b>            | peptidase activity; threonine-type endopeptidase activity;                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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