

# Recombinant Mouse Psmd14 Protein, Myc/DDK-tagged

**Cat. No.** Psmd14-5192M    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <b>Product Overview</b> | Purified recombinant protein of mouse full-length proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 (Psmd14), with C-terminal MYC/DDK tag, expressed in HEK293T cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | Component of the 26S proteasome, a multiprotein complex involved in the ATP-dependent degradation of ubiquitinated proteins. This complex plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins, which could impair cellular functions, and by removing proteins whose functions are no longer required. Therefore, the proteasome participates in numerous cellular processes, including cell cycle progression, apoptosis, or DNA damage repair. The PSMD14 subunit is a metalloprotease that specifically cleaves 'Lys-63'-linked polyubiquitin chains within the complex. Plays a role in response to double-strand breaks (DSBs): acts as a regulator of non-homologous end joining (NHEJ) by cleaving 'Lys-63'-linked polyubiquitin, thereby promoting retention of JMJD2A/KDM4A on chromatin and restricting TP53BP1 accumulation. Also involved in homologous recombination repair by promoting RAD51 loading. |
| <b>Molecular Mass</b>   | 34.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability</b>      | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>        | Store at -80 centigrade after receiving vials.                                                                                                |
| <b>Concentration</b>  | >50 µg/mL as determined by microplate BCA method                                                                                              |
| <b>Storage Buffer</b> | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                         |

## GENE INFORMATION

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|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Psmd14 proteasome (prosome, macropain) 26S subunit, non-ATPase, 14 [ <i>Mus musculus</i> (house mouse) ]                                                                                                                                                                                                                                         |
| <b>Official Symbol</b> | Psmd14                                                                                                                                                                                                                                                                                                                                           |
| <b>Synonyms</b>        | PSMD14; proteasome (prosome, macropain) 26S subunit, non-ATPase, 14; 26S proteasome non-ATPase regulatory subunit 14; MAD1; 26S proteasome non-ATPase subunit; proteasome 26S subunit, non-ATPase 14; 26S proteasome-associated pad1 homolog; 26S proteasome regulatory subunit rpn11; Pad1; Poh1; rpm11; AA986732; 2610312C03Rik; 3200001M20Rik |
| <b>Gene ID</b>         | 59029                                                                                                                                                                                                                                                                                                                                            |
| <b>mRNA Refseq</b>     | NM_021526                                                                                                                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>  | NP_067501                                                                                                                                                                                                                                                                                                                                        |
| <b>UniProt ID</b>      | O35593                                                                                                                                                                                                                                                                                                                                           |

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