

Product datasheet for RC205723

Proteasome subunit beta type 4 (PSMB4) (NM_002796) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Proteasome subunit beta type 4 (PSMB4) (NM_002796) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Proteasome subunit beta type 4
Synonyms:	HN3; HsN3; PRAAS3; PROS-26; PROS26
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	<p>>RC205723 representing NM_002796</p> <p>Red=Cloning site Blue=ORF Green=Tags(s)</p>

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGAAGCGTTTTTGGGGTCGCGGTCCGGACTTTGGGCGGGGGTCCGGCCCCAGGACAGTTTTACCGCA
 TTCCATCCACTCCCGATTCTTCATGGATCCGGCGTCTGCACTTTACAGAGGTCCAATCACGCGGACCCA
 GAACCCCATGGTGACCGGGACCTCAGTCCTCGGCGTTAAGTTCGAGGGCGGAGTGGTGATTGCCGAGAC
 ATGCTGGGATCCTACGGCTCCTTGGCTCGTTCCGCAACATCTCTCGCATTATGCGAGTCAACAACAGTA
 CCATGCTGGGTGCCTCTGGCGACTACGCTGATTTCCAGTATTTGAAGCAAGTTCTCGGCCAGATGGTGAT
 TGATGAGGAGCTTCTGGGAGATGGACACAGCTATAGTCCTAGAGCTATTCAATCATGGCTGACCAGGGCC
 ATGTACAGCCGGCGCTCGAAGATGAACCCTTTGTGGAACACCATGGTCATCGGAGGCTATGCTGATGGAG
 AGAGCTTCCTCGGTTATGTGGACATGCTTGGTGTAGCCTATGAAGCCCTTCGCTGGCCACTGGTTATGG
 TGCATACTTGGCTCAGCCTCTGCTGCGAGAAGTTCTGGAGAAGCAGCCAGTGCTAAGCCAGACCGAGGCC
 CGCGACTTAGTAGAACGCTGCATGCGAGTGCTGTACTACCGAGATGCCCGTTCTTACAACCGGTTTCAA
 TCGCCACTGTACCGAAAAAGTGTTGAAATAGAGGGACCATTGTCTACAGAGACCAACTGGGATATTGC
 CCATGATGATGAGTGGCTTTGAA

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


[View online »](#)

Protein Sequence: >RC205723 representing NM_002796
 Red=Cloning site Green=Tags(s)

MEAFSGSRSLWAGGPAPGQFYRIPSTPDSFMDPASALYRGPITRTQNPMVTGTSVLGVKFEGGVVIAAD
 MLGSYGLARFRNISRIMRVNNTMLGASGDYADFQYLKQVLGQMVIDEELLGDGHSYSPRAIHSWLTRA
 MYSRRSKMNPWLNTMVIIGGYADGESFLGYVDMLGVAYEAPSLATGYGAYLAQPLLREVLEKQPVLSQTEA
 RDLVERCMRVLYYRDARSYNRFQIATVTEKGVEIEGPLSTETNWDIAHMISGFE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6063_g09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002796

ORF Size: 792 bp

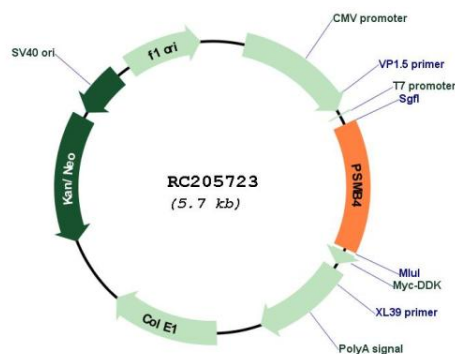
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

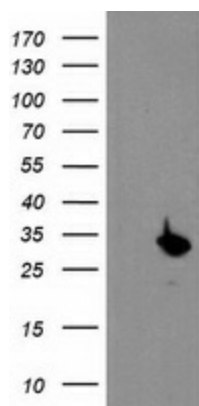
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_002796.3</u>
RefSeq Size:	925 bp
RefSeq ORF:	795 bp
Locus ID:	5692
UniProt ID:	<u>P28070</u>
Cytogenetics:	1q21.3
Domains:	proteasome
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Proteasome
MW:	29 kDa
Gene Summary:	<p>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. [provided by RefSeq, Jul 2008]</p>

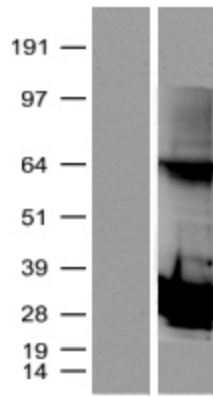
Product images:



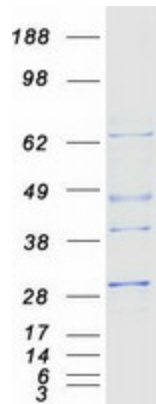
Circular map for RC205723



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PSMB4 (Cat# RC205723, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PSMB4 (Cat# [TA503558]). Positive lysates [LY419106] (100ug) and [LC419106] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419106]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205723 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSMB4 protein (Cat# [TP305723]). The protein was produced from HEK293T cells transfected with PSMB4 cDNA clone (Cat# RC205723) using MegaTran 2.0 (Cat# [TT210002]).