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Product datasheet for RC222965

Proteasome Activator Subunit 4 (PSME4) (NM_014614) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Proteasome Activator Subunit 4 (PSME4) (NM_014614) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Proteasome Activator Subunit 4
Synonyms:	PA200
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

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>RC222965 representing NM_014614
Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence:

>RC222965 representing NM_014614
Red=Cloning site Green=Tags(s)

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Chromatograms: https://cdn.origene.com/chromatograms/mk8046_e03.zip

Restriction Sites: SgfI-MluI

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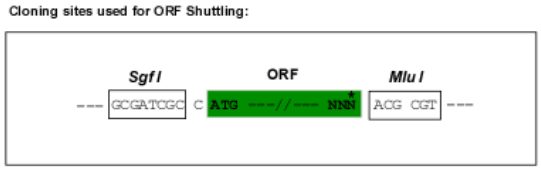
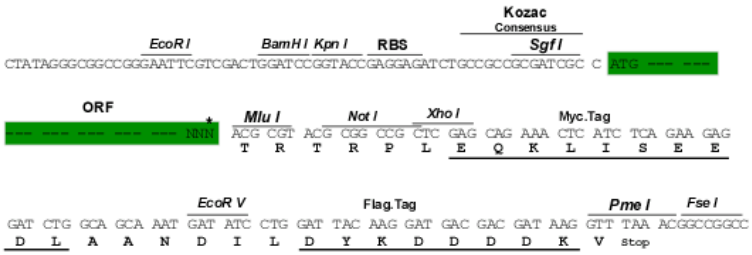
Cloning Scheme:





* The last codon before the Stop codon of the ORF

ACCN:	NM_014614
ORF Size:	5529 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:	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.

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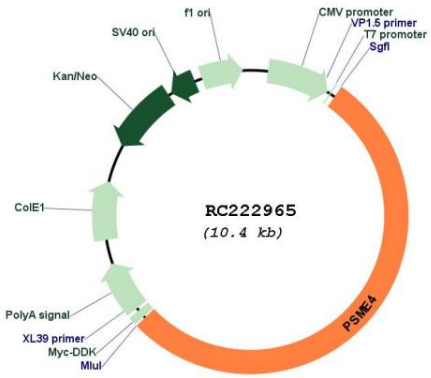
RefSeq:	NM_014614.3
RefSeq Size:	7101 bp
RefSeq ORF:	5532 bp
Locus ID:	23198
UniProt ID:	Q14997
Cytogenetics:	2p16.2
Protein Pathways:	Proteasome
MW:	211.2 kDa
Gene Summary:	Associated component of the proteasome that specifically recognizes acetylated histones and promotes ATP- and ubiquitin-independent degradation of core histones during spermatogenesis and DNA damage response. Recognizes and binds acetylated histones via its bromodomain-like (BRDL) region and activates the proteasome by opening the gated channel for substrate entry. Binds to the core proteasome via its C-terminus, which occupies the same binding sites as the proteasomal ATPases, opening the closed structure of the proteasome via an active gating mechanism. Component of the spermatoproteasome, a form of the proteasome specifically found in testis: binds to acetylated histones and promotes degradation of histones, thereby participating actively to the exchange of histones during spermatogenesis. Also involved in DNA damage response in somatic cells, by promoting degradation of histones following DNA double-strand breaks.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC222965

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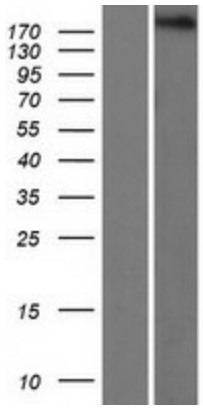
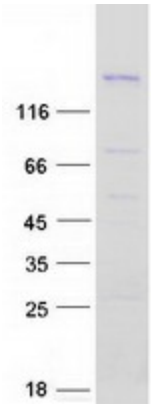


Western blot validation of overexpression lysate (Cat# [LY415166]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222965 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSME4 protein (Cat# [TP322965]). The protein was produced from HEK293T cells transfected with PSME4 cDNA clone (Cat# RC222965) using MegaTran 2.0 (Cat# [TT210002]).

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