

Product datasheet for RG210452

OriGene Technologies, Inc.

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Proteasome subunit beta type 2 (PSMB2) (NM_002794) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Proteasome subunit beta type 2 (PSMB2) (NM_002794) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: Proteasome subunit beta type 2

Synonyms: HC7-I

Mammalian Cell Neomycin

Selection:

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG210452 representing NM_002794

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGAGTACCTCATCGGTATCCAAGGCCCCGACTATGTTCTTGTCGCCTCCGACCGGGTGGCCGCCAGCA
ATATTGTCCAGATGAAGGACGATCATGACAAGATGTTTAAGATGAGTGAAAAAGATATTACTCCTGTGTG
TGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATTCAGAAAAACGTGCAACTTTATAAGATGCGA
AATGGATATGAATTGTCTCCCACGGCAGCAGCTAACTTCACACGCCGAAACCTGGCTGACTGTCTTCGGA
GTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGGCCAGCGCTGTATTA
CATGGACTACCTGGCCAGCCTTGGCCAAGGCCCCTTTTGCAGCCCACGGCTATGGTGCCTTCCTGACTCTC
AGTATCCTCGACCGATACTACACACCCGACTATCTCACGTGAGAGGGCAGTGGAACTCCTTAGGAAATGTC
TGGAGGAGCTCCAGAAACCGCTTCATCCTGAATCTGCCAACCTTCAGTGTTCCGAATCATTGACAAAAAATGG

 ${\tt CATCCATGACCTGGATAACATTTCCTTCCCCAAACAGGGCTCC}$

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG210452 representing NM_002794

Red=Cloning site Green=Tags(s)

MEYLIGIQGPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMR NGYELSPTAAANFTRRNLADCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTL

SILDRYYTPTISRERAVELLRKCLEELQKRFILNLPTFSVRIIDKNGIHDLDNISFPKQGS

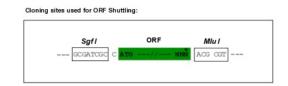
TRTRPLE - GFP Tag - V

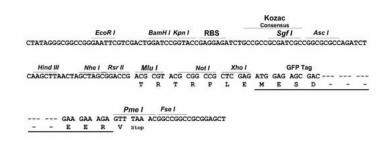
Restriction Sites: Sgfl-Mlul





Cloning Scheme:





ACCN: NM_002794

ORF Size: 603 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.

RefSeq: NM 002794.5

RefSeq Size: 850 bp
RefSeq ORF: 606 bp
Locus ID: 5690
UniProt ID: P49721
Cytogenetics: 1p34.3



Domains: proteasome

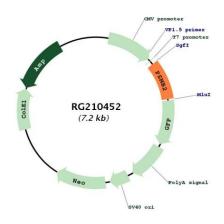
Protein Families: Druggable Genome, Protease

Protein Pathways: Proteasome

Gene Summary: 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. [provided by RefSeq, Dec 2010]

Product images:



Circular map for RG210452