

## Product datasheet for **RC206548**

### PSMA (FOLH1) (NM\_001014986) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMA (FOLH1) (NM_001014986) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PSMA
Synonyms:	FGCP; FOLH; GCP2; GCPII; mGCP; NAALAD1; NAALAdase; PSM; PSMA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

&gt;RC206548 ORF sequence

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGTGGAATCTCCTTACGAAACCGACTCGGCTGTGGCCACCGCGCCGCCCGCTGGCTGTGCGCTG  
GGGCGCTGGTGTGGCGGTGGCTTCTTCTCCTCGGCTTCTCTTCGGGTGTTTATAAAATCCTCCAA  
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GTCCTACCCAAATAAGACTCATCCCACTACATCTCAATAATTAATGAAGATGGAATGAGATTTTCAAC  
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GAAAATAAGGTTAAAAATGCCAGCTGGCAGGGGCCAAAAGGAGTCACTCTACTCCGACCTGCTGACT  
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GAAGTGACAAGAATTTACAATGTGATAGTACTCTCAGAGGAGCAGTGGAAACAGACAGATATGTCATTC  
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ATTTATGTTGCAGCCTTCACAGTGCAGGCAGCTGCAGAGACTTTGAGTGAAGTAGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC206548 protein sequence  
 Red=Cloning site Green=Tags(s)

MWLLHETDSAVATARRPRWLCAGALVLAGGFFLLGFLFGWFIKSSNEATNITPKHNMKAFLDELKAENI  
 KKFLYNFTQIPHLAGTEQNFQLAKQIQSQWKEFGLDSVELAHYDVLLSYPNKTHPNYISINEDGNEIFN  
 TSLFEPPIPPGYENVSDIVPPFSAFSPQGMPEGDLVYVNYARTEDFFKLERDMKINCSGKIVIARYGKVFR  
 GNKVKNAQLAGAKGVILYSDPADYFAPGVKSYPDGWNLPGGGVQQRGNILNLNGAGDPLTPGYPANEYAYR  
 RGI AEAVGLPSIPVHPIGYDDAQKLEKMGGSAPPDSSWRGSLKVPYNVGPFTGNFSTQKVKMHIHSTN  
 EVTRIYNVIGTLRGAVEPDRYVILGGHRDSWVFGGIDPQSGAAVVHEIVRSFGTLKKEGWRPRRILFAS  
 WDAEEFGLLGSTEWAEENSRLQLQERGVAYINADSSIEGNYTLRVDCTPLMYSLVHNLTKELKSPDEGFEG  
 KSLYESWTKKSPSPEFSGMPRISKLGSGNDFEVFFQRLGIASGRARYTKNWETNKFSGYPLYHYSVYETE  
 LVEKFYDPMFKYHLTVAQVRGGMVFEANISIVLPFDCRDYAVVLRKYADKIYSISMKHPQEMKTVSVSFD  
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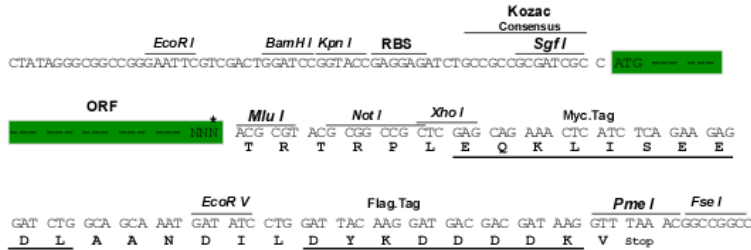
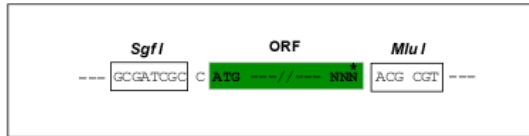
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6327\\_c01.zip](https://cdn.origene.com/chromatograms/mk6327_c01.zip)

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_001014986

ORF Size: 2157 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001014986.3](#)

**RefSeq Size:** 2560 bp

**RefSeq ORF:** 2160 bp

**Locus ID:** 2346

**UniProt ID:** [Q04609](#)

**Cytogenetics:** 11p11.12

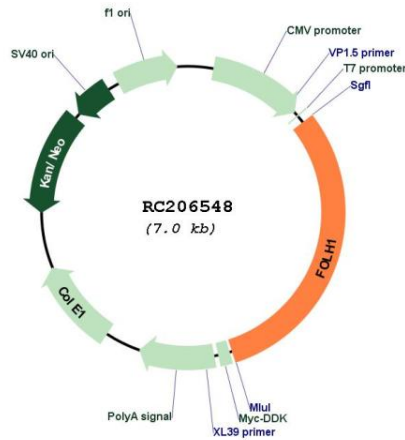
**Protein Families:** Druggable Genome, Protease, Transmembrane

**MW:** 80.6 kDa

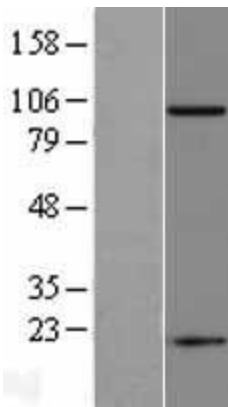
**Gene Summary:**

This gene encodes a type II transmembrane glycoprotein belonging to the M28 peptidase family. The protein acts as a glutamate carboxypeptidase on different alternative substrates, including the nutrient folate and the neuropeptide N-acetyl-L-aspartyl-L-glutamate and is expressed in a number of tissues such as prostate, central and peripheral nervous system and kidney. A mutation in this gene may be associated with impaired intestinal absorption of dietary folates, resulting in low blood folate levels and consequent hyperhomocysteinemia. Expression of this protein in the brain may be involved in a number of pathological conditions associated with glutamate excitotoxicity. In the prostate the protein is up-regulated in cancerous cells and is used as an effective diagnostic and prognostic indicator of prostate cancer. This gene likely arose from a duplication event of a nearby chromosomal region. Alternative splicing gives rise to multiple transcript variants encoding several different isoforms. [provided by RefSeq, Jul 2010]

**Product images:**



Circular map for RC206548



Western blot validation of overexpression lysate (Cat# [LY423102]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206548 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).