

## Product datasheet for **RC231234**

### PSMA (FOLH1) (NM\_001193473) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMA (FOLH1) (NM_001193473) 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:

>RC231234 representing NM\_001193473  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGGTGGCTCAGCACCACCAGATAGCAGCTGGAGAGGAAGTCTCAAAGTGCCCTACAATGTTGGACCTG  
GCTTTACTGAAAACCTTTCTACACAAAAAGTCAAGATGCACATCCACTCTACCAATGAAGTGACAAGAAT  
TTACAATGTGATAGTACTCTCAGAGGAGCAGTGAACCCAGACAGATATGTCATTCTGGGAGGTCACCGG  
GACTCATGGGTGTTTGGTGGTATTGACCCTCAGAGTGGAGCAGCTGTTGTTTCATGAAATTGTGAGGAGCT  
TTGGAACACTGAAAAAGGAAGGGTGGAGACCTAGAAGAACAATTTGTTTGAAGCTGGGATGCAGAAGA  
ATTTGGTCTTCTGGTCTACTGAGTGGCAGAGGAGAATTCAAGACTCCTTCAAGAGCGTGGCGTGGCT  
TATATTAATGCTGACTCATCTATAGAAGGAACTACACTCTGAGAGTTGATTGTACACCGCTGATGTACA  
GCTTGGTACACAACCTAACAAAAGAGCTGAAAAGCCCTGATGAAGGCTTTGAAGGCAAATCTCTTTATGA  
AAGTTGGACTAAAAAAGTCCTTCCCAGAGTTCAGTGGCATGCCAGGATAAGCAAATTTGGGATCTGGA  
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TTATGATCCAATGTTTAAATATCACCTCACTGTGGCCAGGTTTCGAGGAGGGATGGTGTGTTGAGCTAGCC  
AATTCCATAGTGTCCCTTTTATTGTCGAGATTATGCTGTAGTTTTAAGAAAGTATGCTGACAAAATCT  
ACAGTATTTCTATGAAACATCCACAGGAAATGAAGACATACAGTGTATCATTGATTCACTTTTTTCTGC  
AGTAAAGAATTTACAGAAATGCTTCCAAGTTCAGTGAAGACTCCAGGACTTTGACAAAAGCAACCCA  
ATAGTATTAAGAATGATGAATGATCAACTCATGTTCTGGAAAGAGCATTATTGATCCATTAGGGTTAC  
CAGACAGGCCTTTTTATAGGCATGTCATCTATGCTCCAAGCAGCCACAACAAGTATGCAGGGGAGTCATT  
CCCAGGAATTTATGATGCTCTGTTTATGATTGAAAGCAAAGTGGACCCTTCCAAGCCTGGGGAGAAGTG  
AAGAGACAGATTTATGTTGCAGCCTTACAGTGCAGGCAGCTGCAGAGACTTTGAGTGAAGTAGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

## Protein Sequence:

>RC231234 representing NM\_001193473  
Red=Cloning site Green=Tags(s)

MGGSAPPDSSWRGSLKVPYNVPGFTGNFSTQKVKMHIHSTNEVTRIYNVIGTLRGAVEPDRYVILGGHR  
DSWVFGGIDPQSGAAVVHEIVRSFGTLKKEGWRPRRTILFASWDAEEFGLLGSTEWAEENSRLQERVA  
YINADSSIEGNYTLRVDCTPLMYSLVHNLTKELKSPDEGFEGKSLYESWTKKSPSPEFSGMPRIKLGSG  
NDFEVFFQRLGIASGRARYTKNWETNKFSGYPLYHSVYETYELVEKFYDPMFKYHLTVAQVRGGMVFELA  
NSIVLPDFCDRDYAVVLRKYADKIYSISMKHPQEMKTYSVSFDLFSAVKNFTEIASKFSERLQDFDKSNP  
IVLRMMNDQLMFLERAFIDPLGLPDRPFYRHVIYAPSSHKNKYAGESFPGIYDALFDIESKVDPSKAWGEV  
KRQIYVAAFTVQAAAETLSEVA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

## Chromatograms:

[https://cdn.origene.com/chromatograms/mk8060\\_b11.zip](https://cdn.origene.com/chromatograms/mk8060_b11.zip)

## Restriction Sites:

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001193473

**ORF Size:** 1326 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\\_001193473.3](#)

**RefSeq ORF:** 1329 bp

**Locus ID:** 2346

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

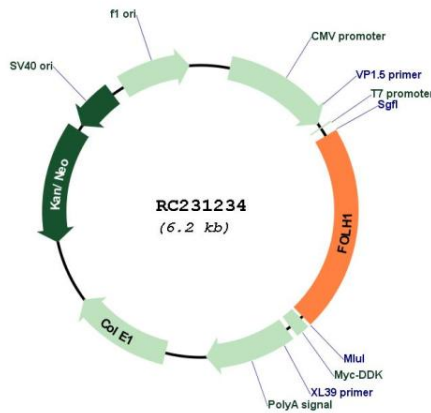
**Cytogenetics:** 11p11.12

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

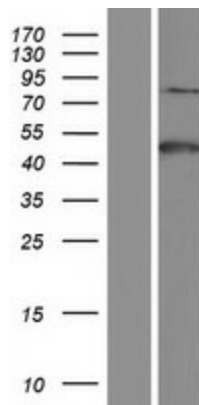
**MW:** 50.5 kDa

**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 RC231234



Western blot validation of overexpression lysate (Cat# [LY434233]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231234 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).