

## Product datasheet for **RC209843**

### Protamine 2 (PRM2) (NM\_002762) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Protamine 2 (PRM2) (NM_002762) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Protamine 2
Synonyms:	CT94.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209843 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCCGATACCGCGTGAGGAGCCTGAGCGAACGCTCGCACGAGGTGTACAGGCAGCAGTTGCATGGGC  
AAGAGCAAGGACACCACGGCCAAGAGGAGCAAGGGCTGAGCCCGGAGCACGTCGAGGTCTACGAGAGGAC  
CCATGGCCAGTCTCACTATAGGCGCAGACACTGCTCTCGAAGGAGGCTGCACCGGATCCACAGCGGCAG  
CATCGCTCCTGCAGAAGGCGAAAAGACGCTCCTGCAGGCACCGGAGGAGGCATCGCAGAGGCTGCAGAA  
CCAGGAAGAGAACATGCAGAAGGCAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC209843 protein sequence Red=Cloning site Green=Tags(s)
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MVRYRVRSLSERSHEVYRQQLHGQEQGHGQEEQGLSPEHVEVYERTHGQSHYRRRHCSRRLHRIHRRQ  
HRSCRRRKRSCRHRRRHRRGCRTRKRTCRRH

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6529\\_d12.zip](https://cdn.origene.com/chromatograms/mk6529_d12.zip)

Restriction Sites: SgfI-MluI



[View online »](#)

**Cloning Scheme:**


**ACCN:** NM\_002762

**ORF Size:** 306 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\\_002762.4](#)

**RefSeq Size:** 683 bp

**RefSeq ORF:** 309 bp

**Locus ID:** 5620

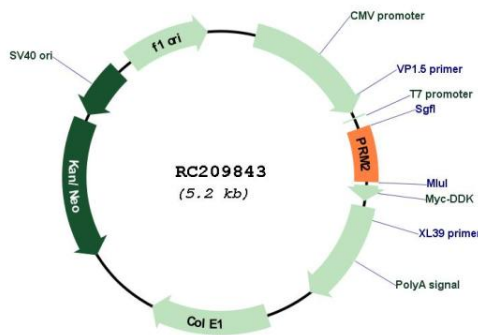
UniProt ID: [P04554](#)

Cytogenetics: 16p13.13

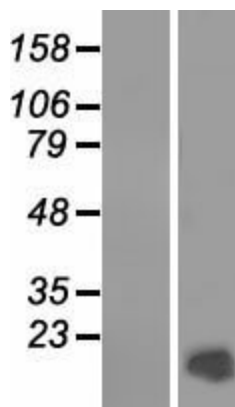
MW: 13.1 kDa

**Gene Summary:** Protamines substitute for histones in the chromatin of sperm during the haploid phase of spermatogenesis, and are the major DNA-binding proteins in the nucleus of sperm in many vertebrates. They package the sperm DNA into a highly condensed complex in a volume less than 5% of a somatic cell nucleus. Many mammalian species have only one protamine (protamine 1); however, a few species, including human and mouse, have two. This gene encodes protamine 2, which is cleaved to give rise to a family of protamine 2 peptides. Alternatively spliced transcript variants have also been found for this gene. [provided by RefSeq, Sep 2015]

**Product images:**



Circular map for RC209843



Western blot validation of overexpression lysate (Cat# [LY419126]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209843 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).