

## Product datasheet for **RC225686**

### ZP3 (NM\_001110354) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ZP3 (NM_001110354) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ZP3
Synonyms:	OOMD3; Zp-3; ZP3A; ZP3B; ZPC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC225686 representing NM\_001110354  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGAGCTGAGCTATAGGCTCTTCATCTGCCTCCTGCTCTGGGGTAGTACTGAGCTGTGCTACCCCCAAC  
 CCCTCTGGCTCTTGCAGGGTGGAGCCAGCCATCCTGAGACGTCCGTACAGCCCGTACTGGTGGAGTGCA  
 GGAGGCCACTCTGATGGTCATGGTCAGCAAAGACCTTTTTGGCACCAGGGAAGCTCATCAGGGCTGTGAC  
 CTCACCTTGGGCCAGAGGCCTGTGAGCCTCTGGTCTCCATGGACACAGAAGATGTGGTCAGGTTTGAGG  
 TTGGACTCCACGAGTGTGGCAACAGCATGCAGGTAAGTACGATGCCCTGGTGTACAGCACCTTCTGCT  
 CCATGACCCCGCCCGTGGAAACCTGTCCATCGTGAGGACTAACCGCGCAGAGATTCCCATCGAGTGC  
 CGTACCCAGGCAGGGCAATGTGAGCAGCCAGGCCATCTGCCACCTGGTTGCCCTTCAGGACCAGG  
 TGTTCTCAGAGGAGAAGCTGACTTCTCTGCGTCTGATGGAGGAGAACTGGAACGCTGAGAAGAGGTC  
 CCCCACCTTCCACTGGGAGATGCAGCCACCTCCAGGCAGAAATCCACACTGGCAGCCAGTGCCACTG  
 CGGTTGTTTGTGGACCACTGCGTGGCCACACCGACACCAGACCAGAATGCCTCCCCTTATCACACCATCG  
 TGGACTTCCATGGCTGTCTTGTGCGACGGTCTCACTGATGCCTTCTCTGCATTCAAAGTCCCTCGACCCGG  
 GCCAGATACACTCCAGTTCACAGTGGATGTCTTCCACTTGTCTAAAGTACTCCAGAAAATGATATACATC  
 ACCTGCCACCTGAAGGTACCCTAGCTGAGCAGGACCCAGATGAAGTCAACAAGGCTGTTCCTTCAGCA  
 AGCCTTCAACAGCTGGTCCCAGTGAAGGCTCGGCTGACATCTGTCAATGCTGTAACAAGGTGACTG  
 TGGCACTCCAAGCATTCCAGGAGGCAGCCTCATGTGATGAGCCAGTGGTCCAGGCTGCTTCCCGTAAC  
 CGCAGGCATGTGACAGAAGAAGCAGATGCACCGTGGGGCCACTGATCTTCTGGACAGGAGGGGTGACC  
 ATGAAGTAGAGCAGTGGGCTTTGCCTTCTGACACCTCAGTGGTGTGCTGGGCGTAGGCCTGGCTGTGGT  
 GGTGTCCCTGACTCTGACTGCTGTATCCTGGTCTCACCAGGAGGTGTGCACTGCCTCCCACCCTGTG  
 TCTGCTCCGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225686 representing NM\_001110354  
 Red=Cloning site Green=Tags(s)

MELSYRLFICLLWGSTELCYPQPLWLLQGGASHPETSVPVLEVCQEATLMVMVSKDLFGTGKLIIRAAD  
 LTLGPEACEPLVSMDEDVVRFEVGLHECGNSMQVTDDALVYSTFLLHDP RPVGNLSIVRTNRAEIPIC  
 RYPRQGNVSSQAILPTWLPFRITVFSEEKLTFSLRLMEENWNAEKRSPTFHLGDAHLQAEIHTGSHVPL  
 RLFVDHCVATPTPDQNASPYHTIVDFHGCLVDGLDASSAFKVP RPDPDLQFTVDVVFHFANDSRNMIYI  
 TCHLKVTLAEQDPDELNKACFSKPSNSWFPVEGSADICQCCNKGDGCTPSSRRRQPHVMSQWSRSASRN  
 RRHVTEEADVTVGPLIFLDRRGDHEVEQWALPSDTSVVLGLVGLAVVVSLLTAVILVLTTRRCRTASHPV  
 SASE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3074\\_a07.zip](https://cdn.origene.com/chromatograms/mg3074_a07.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**ACCN:** NM\_001110354

**ORF Size:** 1272 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\\_001110354.2](#)
**RefSeq ORF:** 1275 bp

**Locus ID:** 7784

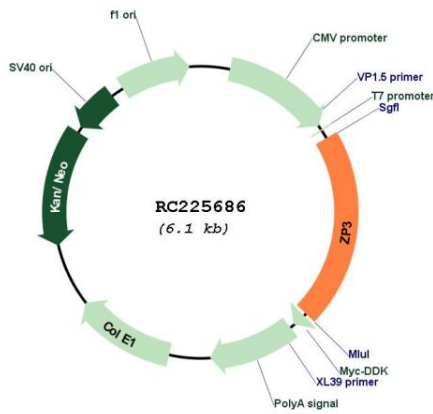
**UniProt ID:** [P21754](#)
**Cytogenetics:** 7q11.23

**Protein Families:** Secreted Protein, Transmembrane

**MW:** 47.02 kDa

**Gene Summary:** The zona pellucida is an extracellular matrix that surrounds the oocyte and early embryo. It is composed primarily of three or four glycoproteins with various functions during fertilization and preimplantation development. The protein encoded by this gene is a structural component of the zona pellucida and functions in primary binding and induction of the sperm acrosome reaction. The nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a C-terminal consensus furin cleavage site, and a transmembrane domain. It is hypothesized that furin cleavage results in release of the mature protein from the plasma membrane for subsequent incorporation into the zona pellucida matrix. However, the requirement for furin cleavage in this process remains controversial based on mouse studies. A variation in the last exon of this gene has previously served as the basis for an additional ZP3 locus; however, sequence and literature review reveals that there is only one full-length ZP3 locus in the human genome. Another locus encoding a bipartite transcript designated POMZP3 contains a duplication of the last four exons of ZP3, including the above described variation, and maps closely to this gene. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RC225686