

# **Product datasheet for SC317200**

## ZP3 (NM 001110354) Human Untagged Clone

### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** ZP3 (NM\_001110354) Human Untagged Clone

Tag: Tag Free

Symbol: ZP3

Synonyms: OOMD3; Zp-3; ZP3A; ZP3B; ZPC

Mammalian Cell None

Selection:

Vector: pCMV6-XL4

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

Fully Sequenced ORF: >OriGene ORF sequence for NM\_001110354 edited

ATGGAGCTGAGCTATAGGCTCTTCATCTGCCTCCTGCTCTGGGGTAGTACTGAGCTGTGC CCCGTACTGGTGGAGTGTCAGGAGGCCACTCTGATGGTCATGGTCAGCAAAGACCTTTTT GGCACCGGGAAGCTCATCAGGGCTGCTGACCTCACCTTGGGCCCAGAGGCCTGTGAGCCT CTGGTCTCCATGGACACAGAAGATGTGGTCAGGTTTGAGGTTGGACTCCACGAGTGTGGC AACAGCATGCAGGTAACTGACGATGCCCTGGTGTACAGCACCTTCCTGCTCCATGACCCC CGCCCCGTGGGAAACCTGTCCATCGTGAGGACTAACCGCGCAGAGATTCCCATCGAGTGC CGCTACCCCAGGCAGGCAATGTGAGCAGCCAGGCCATCCTGCCCACCTGGTTGCCCTTC AGGACCACGGTGTTCTCAGAGGAGAAGCTGACTTTCTCTCTGCGTCTGATGGAGGAGAAC TGGAACGCTGAGAAGAGGTCCCCCACCTTCCACCTGGGAGATGCAGCCCACCTCCAGGCA CCGACACCAGACCAGAATGCCTCCCCTTATCACACCATCGTGGACTTCCATGGCTGTCTT GTCGACGGTCTCACTGATGCCTCTTCTGCATTCAAAGTTCCTCGACCCGGGCCAGATACA CTCCAGTTCACAGTGGATGTCTTCCACTTTGCTAATGACTCCAGAAACATGATATACATC ACCTGCCACCTGAAGGTCACCCTAGCTGAGCAGGACCCAGATGAACTCAACAAGGCCTGT TCCTTCAGCAAGCCTTCCAACAGCTGGTTCCCAGTGGAAGGCTCGGCTGACATCTGTCAA TGCTGTAACAAAGGTGACTGTGGCACTCCAAGCCATTCCAGGAGGCAGCCTCATGTCATG AGCCAGTGGTCCAGGTCTGCTTCCCGTAACCGCAGGCATGTGACAGAAGAAGCAGATGTC ACCGTGGGGCCACTGATCTTCCTGGACAGGAGGGGTGACCATGAAGTAGAGCAGTGGGCT TTGCCTTCTGACACCTCAGTGGTGCTGCTGGGCGTAGGCCTGGCTGTGGTGGTGTCCCTG ACTCTGACTGCTGTTATCCTGGTTCTCACCAGGAGGTGTCGCACTGCCTCCCACCCTGTG

TCTGCTTCCGAATAA

**Restriction Sites:** Please inquire ACCN: NM\_001110354



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#### ZP3 (NM\_001110354) Human Untagged Clone - SC317200

**Insert Size:** 1400 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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: <u>NM 001110354.1</u>, <u>NP 001103824.1</u>

 RefSeq Size:
 1317 bp

 RefSeq ORF:
 1275 bp

 Locus ID:
 7784

 UniProt ID:
 P21754

Cytogenetics: 7q11.23

**Protein Families:** Secreted Protein, Transmembrane



#### **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]

Transcript Variant: This variant (1) encodes the longer isoform (1).