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# Product datasheet for SC304918

## ZP4 (NM_021186) Human Untagged Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | ZP4 (NM_021186) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | ZP4 |
| **Synonyms:** | ZBP; Zp-4; ZP1; ZPB |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | PCMV6-Neo |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

**Fully Sequenced ORF:**

```
>OriGene sequence for NM_021186 edited
ATGTGGCTGCTGCGGTGCGTTTTGCTGTGTGTTTCATTATCTCTTGCTGTGAGTGGCCAG
CATAAGCCTGAGGCACCAGATTATTCCAGTGTGCTCCACTGTGGGCCGTGGAGCTTCCAG
TTTGCTGTAAACCTCAACCAGGAGGCAACGTCTCCTCCTGTACTAATAGCTTGGGACAAC
CAAGGGCTGCTGCACGAGCTGCAGAATGACTCCGACTGTGGCACCTGGATAAGAAAAGGT
CCAGGCAGCTCCGTGGTGTTGGAGGCAACCTATAGCAGCTGCTATGTCACTGAGTGGGAC
TCCCACTACATCATGCCAGTTGGAGTTGAAGGAGCAGGCGCGGCTGAACACAAGGTGGTT
ACAGAGAGGAAGCTGCTCAAGTGTCCTATGGATCTTCTAGCCCGAGATGCTCCAGATACT
GACTGGTGTGACTCCATCCCAGCACGGGACAGACTGCCATGTGCACCTTCACCCATCTCT
CGAGGAGACTGTGAAGGGCTAGGCTGTTGTTATAGCTCTGAAGAGGTGAATTCCTGCTAC
TATGGAAACACTGTGACCTTGCATTGTACCCGAGAGGGCCATTTCTCTATTGCTGTGTCT
CGGAACGTGACCTCGCCACCACTGCTCTTGGATTCTGTGCGCTTGGCCCTTAGGAATGAC
AGTGCGTGTAACCCTGTGATGGCAACACAAGCTTTTGTTCTGTTCCAGTTTCCATTTACT
TCCTGTGGCACCACAAGACAGATCACTGGAGACCGAGCAGTATATGAAAATGAACTGGTG
GCAACTAGGGATGTGAAAAATGGGAGCCGTGGCTCTGTCACTCGTGACAGCATCTTCAGG
CTCCATGTCAGCTGCAGCTACTCAGTAAGTAGCAACTCTCTCCCAATCAATGTCCAGGTT
TTCACTCTCCCACCACCCTTTCCTGAGACCCAGCCTGGACCCCTCACTCTGGAACTTCAG
ATTGCCAAAGATAAAAACTATGGCTCTTACTACGGTGTTGGTGACTACCCAGTGGTGAAG
TTGCTTCGGGATCCCATTTACGTGGAGGTCTCCATCCTTCACAGAACAGACCCCTACCTG
GGGCTGCTCCTACAACAGTGTTGGGCAACACCCAGCACTGACCCCCTGAGTCAGCCACAG
TGGCCCATCCTGGTAAAGGGCTGCCCCTACATTGGAGACAACTATCAGACCCAGCTGATC
CCTGTCCAGAAAGCCTTGGATCTTCCATTTCCCTCTCACCACCAGCGCTTCAGCATCTTC
ACCTTCAGCTTTGTGAACCCTACAGTGGAGAAACAGGCCCTCAGGGGACCGGTGCATCTG
CACTGCAGCGTGTCAGTCTGCCAGCCTGCTGAGACACCATCCTGTGTGGTGACCTGTCCT
GATCTCAGTCGAAGAAGAAATTTTGACAACAGTTCTCAGAACACTACTGCTAGTGTTTCT
AGCAAAGGCCCCATGATTCTACTCCAAGCCACTAAGGACCCTCCAGAAAAGCTCCGTGTT
CCTGTAGACTCGAAAGTTCTGTGGGTGGCAGGCCTTTCTGGGACCTTAATCCTTGGAGCC
TTGTTAGTATCCTACTTGGCTGTCAAGAAACAGAAGAGTTGCCCAGACCAAATGTGTCAA
TAA
```

**Restriction Sites:** Please inquire

**ACCN:** NM_021186

**Insert Size:** 1600 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).

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| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_021186.2, NP_067009.1 |
| **RefSeq Size:** | 1635 bp |
| **RefSeq ORF:** | 1623 bp |
| **Locus ID:** | 57829 |
| **UniProt ID:** | Q12836 |
| **Cytogenetics:** | 1q43 |
| **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 nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a consensus furin cleavage site, and a C-terminal 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. Previously, this gene has been referred to as ZP1 or ZPB and thought to have similar functions as mouse Zp1. However, a human gene with higher similarity and chromosomal synteny to mouse Zp1 has been assigned the symbol ZP1 and this gene has been assigned the symbol ZP4. [provided by RefSeq, Jul 2008] |