

## Product datasheet for **RG210705**

### ZP3 (NM\_007155) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ZP3 (NM_007155) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ZP3
Synonyms:	OOMD3; Zp-3; ZP3A; ZP3B; ZPC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210705 representing NM_007155 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCATGGTCAGCAAAGACCTTTTTGGCACCGGAAGCTCATCAGGGCTGCTGACCTCACCTTGGGCC  
CAGAGGCTGTGAGCCTCTGGTCTCCATGGACACAGAAGATGTGGTCAGGTTTGAGGTTGGACTCCACGA  
GTGTGGCAACAGCATGCAGGTAAGTACGATGCCCTGGTGTACAGCACCTTCTGCTCCATGACCCCGC  
CCCGTGGGAAACCTGTCCATCGTGAAGACTAACCGCGCAGAGATCCCATCGAGTGCCGCTACCCAGGC  
AGGGCAATGTGAGCAGCCAGGCCATCTGCCACCTGGTTGCCCTCAGGACCACGGTGTCTCAGAGGA  
GAAGCTGACTTTCTCTCTGCGTCTGATGGAGGAGAAGTGGAAACGCTGAGAAGAGGTCCCCACCTTCCAC  
CTGGGAGATGCAGCCACCTCCAGGCAGAAATCCACACTGGCAGCCACGTGCCACTGCGGTTGTTTGTGG  
ACCACTGCGTGGCCACACCGACACCAGACCAGAAATGCCTCCCCTTATCACACCATCGTGGACTTCCATGG  
CTGTCTTGTGCGCGTCTCACTGATGCCTTCTGCAATCAAAGTTCTCGACCCGGGCCAGATACACTC  
CAGTTCACAGTGGATGTCTTCACTTTGCTAATGACTCCAGAAACATGATATACATCACCTGCCACCTGA  
AGGTCACCCTAGCTGAGCAGGACCCAGATGAACTCAACAAGGCCTGTTCCCTCAGCAAGCCTTCAAACAG  
CTGGTTCCAGTGAAGGCCCGGCTGACATCTGCAATGCTGTAACAAAGGTGACTGTGGCACTCCAAGC  
CATTCCAGGAGGCAGCCTCATGTGATGAGCCAGTGGTCCAGGCTGCTTCCCGTAACCCAGGCATGTGA  
CAGAAGAAGCAGATGTACCGTGGGGCCACTGATCTTCCGACAGGAGGGGTGACCATGAAGTAGAGCA  
GTGGGCTTTGCCCTCTGACACCTCAGTGGTGTGCTGGGCGTAGGCCCTGGCTGTGGTGGTGTCCCTGACT  
CTGACTGCTGTTATCCTGGTTCTCACCAGGAGGTGTCGCACTGCCTCCCACCCTGTGCTGCTTCCGAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG210705 representing NM\_007155  
Red=Cloning site Green=Tags(s)

MVMVSKDLFGTGKLIIRAADLTLPGEACEPLVSMDETDDVVRFEVGLHECGNSMQVTDDALVYSTFLLHDP  
 PVGNLSIVRTNRAEPIECRYPRQGNVSSQAILPTWLPFRITVFSEEKLFSLRLMEENWNAEKRSPTFH  
 LGDAAHLQAEIHTGSHVPLRLFVDHCVAIPTDQNASPYHTIVDFHGCLVDGLTDASSAFKVPVPRGPD  
 QFTVDVVFHFANDSRNMIYITCHLKVTLAEQDPDELNKACFSFKPSNSWFPVEGPADICQCCNKGDG  
 GTPSHRRQPHVMSQWSRSASRNRRHVTEEADVTVGPLIFLDRRGDHEVEQWALPSDTSVLLGVGLAVV  
 VSLTLTAVILVLTRRCRTASHPVSASE

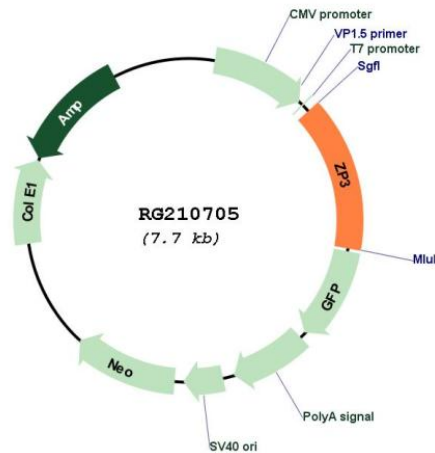
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_007155

<b>ORF Size:</b>	1119 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_007155.4</a> , <a href="#">NP_009086.4</a>
<b>RefSeq Size:</b>	1467 bp
<b>RefSeq ORF:</b>	1122 bp
<b>Locus ID:</b>	7784
<b>UniProt ID:</b>	<a href="#">P21754</a>
<b>Cytogenetics:</b>	7q11.23
<b>Protein Families:</b>	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]