

Product datasheet for **RG210177**

ZP4 (NM_021186) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ZP4 (NM_021186) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ZP4
Synonyms:	ZBP; Zp-4; ZP1; ZPB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG210177 representing NM_021186
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTGGCTGCTGCGGTGCGTTTTGCTGTGTGTTTCATTATCTCTTCTGCTGTGAGTGCCAGCATAAGCCTG
 AGGCACCAGATTATTCCAGTGTGCTCCACTGTGGGCCGTGGAGCTTCCAGTTTGCTGTAAACCTCAACCA
 GGAGGCAACGCTCTCCTCCTGTAATAAGCTTGGGACAACCAAGGGCTGCTGCACGAGCTGCAGAATGAC
 TCCGACTGTGGCACCTGGATAAGAAAAGGTCCAGGCAGCTCCGTGGTGTGGAGGCAACCTATAGCAGCT
 GCTATGCTACTGAGTGGGACTCCACTACATCATGCCAGTTGGAGTTGAAGGAGCAGGCGCGCTGAACA
 CAAGGTGGTTACAGAGAGGAAGCTGCTCAAGTGTCTATGGATCTTCTAGCCGAGATGCTCCAGATACT
 GACTGGTGTGACTCCATCCAGCACGGGACAGACTGCCATGTGCACCTTCACCCATCTCTCGAGGAGACT
 GTGAAGGGCTAGGCTGTGTTATAGCTCTGAAGAGGTGAATTCCTGCTACTATGGAACACTGTGACCTT
 GCATTGTACCCGAGAGGGCCATTTCTCTATTGCTGTGTCTCGAACTGACCTCGCCACCACTGCTCTTG
 GATTCTGTGCGCTTGGCCCTTAGGAATGACAGTGCCTGTAACCCCTGTGATGGCAACAAGCTTTTGTTT
 TGTTCAGTTTCCATTTACTTCTGTGGCACCACAAGACAGATCACTGGAGACCGAGCAGTATATGAAAA
 TGAAGTGGTGGCAACTAGGGATGTGAAAAATGGGAGCCGTGGCTCTGCTACTCGTACAGCATCTTCAGG
 CTCCATGTGAGCTGCAGCTACTCAGTAAGTAGCAACTCTCTCCAATCAATGTCCAGGTTTTCACTCTCC
 CACCACCTTTCTGAGACCCAGCCTGGACCCCTCACTCTGGAACCTCAGATTGCCAAAGATAAAAACTA
 TGGCTCTTACTACGGTGTGGTACTACCCAGTGGTGAAGTTGCTTCGGGATCCATTTACGTGGAGGTC
 TCCATCCTTACAGAACAGACCCCTACCTGGGGCTGCTCTACAACAGTGTGGGCAACACCCAGCACTG
 ACCCCCTGAGTCAGCCACAGTGGCCATCCTGGTAAAGGGCTGCCCTACATTGGAGACAACACTATCAGAC
 CCAGCTGATCCCTGTCCAGAAAGCCTTGGATCTTCCATTTCCCTCTCACCACCAGCGCTTACGATCTTC
 ACCTTCAGCTTTGTGAACCCTACAGTGGAGAAACAGGCCCTCAGGGGACCGGTGCATCTGCACTGCAGCG
 TGTGAGTCTGCCAGCCTGCTGAGACACCATCCTGTGTGGTACCTGTCTGATCTCAGTCGAAGAAGAAA
 TTTTGACAACAGTTCTCAGAACACTACTGCTAGTGTCTTAGCAAAAGGCCCATGATTCTACTCCAAGCC
 ACTAAGGACCTCCAGAAAAGCTCCGTGTTCTGTAGACTCGAAAGTTCTGTGGTGGCAGGCTTTCTG
 GGACCTAATCCTTGGAGCCTTGTAGTATCCTACTTGGCTGTCAAGAAACAGAAGATTGCCAGACCA
 AATGTGTCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG210177 representing NM_021186
 Red=Cloning site Green=Tags(s)

MWLLRCVLLCVLSLAVSGQHKPEAPDYSSVLHCGPWSFQFAVNLNQEATSPPVLIAWDNQGLLHELQND
 SDCGTWIRKGPSSVLEATYSSCYVTEWDSHYIMPVGVGAGAAEHKVVTERKLLKCPMDLLARDAPDT
 DWCD SIPARDRLPCAPSPI SRGDCEGLGCCYSSEEVNSCYGNTVTLHCTREGHFSIAVSRNVTSPLLL
 DSVRLALRND SACNPVMTQAFVLFQFPFTSCGTTTRQITGDRAVYENELVATRDVKNGSRGVSVTRDSIFR
 LHVSCSYVSSNSLPINQVFTLPPFPETQPGPLTLELQIAKDKNYGSYYGVGDYPVVKLLRDPYIYVEV
 SILHRTDPYLG LLLQQCWATPSTDPLSQPQWPILVKGCPIYIGDNYQTLIPVQKALDLPFSPHHQRF SIF
 TFSFVNPTVEKQALRGPVHLHCSVSVCQPAETPSCVVTCPDLR RRRNFDNSSQNTTASVSSKGP MILLQA
 TKDPPEKLRVPVDSKVLWVAGLSGTLILGALLVSYLAVKKQKSCPDQMCQ

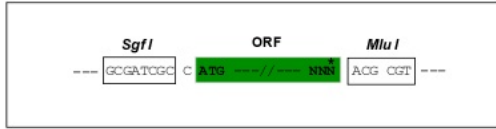
TRTRPLE - GFP Tag - V

Restriction Sites:

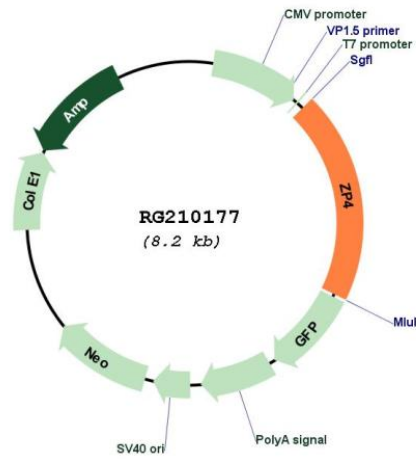
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN:	NM_021186
ORF Size:	1620 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:	<ol style="list-style-type: none">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_021186.4
RefSeq Size:	2474 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]