

## Product datasheet for **RG204743**

### PSG2 (NM\_031246) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSG2 (NM_031246) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PSG2
Synonyms:	CEA; PSBG2; PSG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204743 representing NM_031246 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGCCCTCTCAGCCCTCCCTGCACAGAGCACATCAAATGGAAGGGGCTCCTGCTCACAGCATCAC  
TTTTAACTTCTGGAACCTGCCACCCTGCCAAGTACGATTGAAGCCAGCCACCAAAAGTTCCGA  
GGGAAGGATGTTCTTCTACTTGTCCACAATTTGCCCCAGAATCTTACTGGCTACATCTGGTACAAAGG  
CAAATCAGGGACCTCTACCATTACATTACATCATATGTAGTAGACGGTCAAATAATTATATATGGGCTG  
CATATAGTGGACGAGAAACAGCATATTTCCAATGCATCCCTGCTGATCCAGAATGTCACCCGGGAGGACGC  
AGGATCTACACCTTACACATCATAAAGCGAGGTGATGGGACTAGAGGAGTAACTGGATATTTACCTTC  
ACCTTATACCTGGAGACTCCCAAGCCCTCCATCTCCAGCAGCAACTTAAACCCAGGGAGGCCATGGAAA  
CTGTGATCTTAACCTGTGATCCTGAGACTCCGGACACAAGCTACCAGTGGTGGATGAATGGTCAGAGCCT  
CCCTATGACTCACAGTTTCAGCTGTCCGAAACCAACAGGACCCTCTTTCTATTTGGTGTCAAAAGTAT  
ACTGCAGGACCCTATGAATGTGAAATACGGAACCTCAGGGAGTGCCAGCCGAGTGACCCAGTCACCTGA  
ATCTCCTCCATGGTCCAGACCTCCCAGAATTCACCTTCATACCAATTACCGTTCAGGAGATAACCT  
CTACTTGTCTTGCTTCGCGAACTCTAACCCACCGGCACAGTATTCTTGGACAATTAATGGGAAGTTTCAG  
CAATCAGGACAAAATCTGTTTATCCCCAAATTAACAAGCATAGCGGGCTCTATGTTTGCTCTGTTC  
GTAACCTAGCCACTGGCGAGGAAAGCTCCACGTGTTGACAGTCAAAGTCTCTGCTTCTACAAGAATAGG  
ACTTCTCCTCTCCTTAATCCAACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204743 representing NM\_031246  
Red=Cloning site Green=Tags(s)

MGPLSAPPCTEHIKWKGLLLTASLLNFWNLPTTAQVTIEAQP PKVSEKDVLLL VHNLPQNL TGYIWKG  
 QIRDLYHYITSYVVDGQII IYGPAYSGRETAYSNASLLIQNVTREDAGSYTLHI IKRGDGTRGVTGYFTF  
 TLYLETPKPSISSNLPREAME TVIL TCDPETPDTSYQWWMNGQSLPMTHRFQLSETNRTLFLFGVTKY  
 TAGPYECEIRNSGSASRSDPVTLNLLHGPDLPRIHPSYTNYRSGDNL YLSCFANSNPPAQYSWTINGKFQ  
 QSGQNLFI PQITTKHSGLYVCSVRNSATGEESSSTLTVKVSASTRIGLLPLLNT

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_031246

**ORF Size:** 1005 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\\_031246.1](#), [NP\\_112536.1](#)

**RefSeq Size:** 1523 bp

**RefSeq ORF:** 1008 bp

**Locus ID:** 5670

**UniProt ID:** [P11465](#)

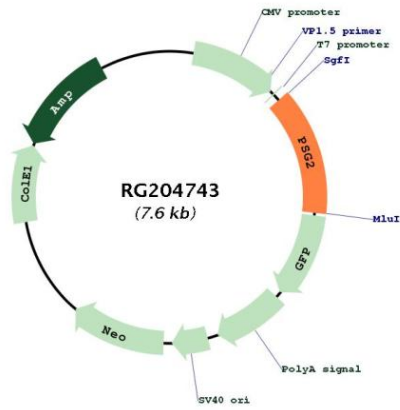
**Cytogenetics:** 19q13.31

**Domains:** ig, IGc2, IG

**Protein Families:** Secreted Protein

**Gene Summary:** The human pregnancy-specific glycoproteins (PSGs) are a family of proteins that are synthesized in large amounts by placental trophoblasts and released into the maternal circulation during pregnancy. Molecular cloning and analysis of several PSG genes has indicated that the PSGs form a subgroup of the carcinoembryonic antigen (CEA) gene family, which belongs to the immunoglobulin superfamily of genes. Members of the CEA family consist of a single N domain, with structural similarity to the immunoglobulin variable domains, followed by a variable number of immunoglobulin constant-like A and/or B domains. Most PSGs have an arg-gly-asp (RGD) motif, which has been shown to function as an adhesion recognition signal for several integrins, in the N-terminal domain (summary by Teglund et al., 1994 [PubMed 7851896]). For additional general information about the PSG gene family, see PSG1 (MIM 176390).[supplied by OMIM, Oct 2009]

Product images:



Circular map for RG204743