

## Product datasheet for **RG236688**

### Major Basic Protein (PRG2) (NM\_001302926) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Major Basic Protein (PRG2) (NM_001302926) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Major Basic Protein
Synonyms:	BMPG; MBP; MBP1; proMBP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG236688 representing NM_001302926. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAACTCCCCCTACTTCTGGCTCTTCTATTTGGGGCAGTTTCTGCTCTTCATCTAAGGTCTGAGACT
TCCACCTTTGAGACCCCTTTGGGTGCTAAGACGCTGCCTGAGGATGAGGAGACACCAGAGCAGGAGATG
GAGGAGACCCCTTGCAGGGAGCTGGAGGAAGAGGAGGAGTGGGGCTCTGGAAGTGAAGATGCCTCCAAG
AAAGATGGGGCTGTTGAGTCTATCTCAGTGCCAGATATGGTGGACAAAAACCTTACGTGTCCTGAGGAA
GAGGACACAGTAAAAGTGGTGGCATCCCTGGGTGCCAGACCTGCCGCTACCTCCTGGTGAAGTCTT
CAGACGTTTAGTCAAGCTTGGTTTACTTGCCGGAGGTGCTACAGGGGCAACCTGGTTTCCATCCACAAC
TTCAATATTAATTATCGAATCCAGTGTTCTGTACGCGCGCTCAACCAGGGTCAAGTCTGGATTGGAGGC
AGGATCACAGGCTCGGGTCGCTGCAGACGCTTTCAGTGGGTTGACGGCAGCCGCTGGAACCTTTCGCTAC
TGGGCTGCTCACCAGCCCTGGTCCCAGGCTGGTACTGCGTGGCCCTGTGTACCCGAGGAGGCTACTGG
CGTCGAGCCCACTGCCTCAGAAGACTTCCTTTCATCTGTTCTCTAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG236688  
 Blue=ORF Red=Cloning site Green=Tag(s)

MKLPLLLALLFGAVSALHLRSETSTFETPLGAKTLPEDEETPEQEMEETPCRELEEEEEWGGSEDASK  
 KDGAVESISVPMVDKNLTCPEEEDTVKVVGIPGCQTCRYLLVRSLQTFSQAWFTRCRCYRGNLVSIIHN  
 FNINIRIQCSVSALNQGQVWIGGRITGSGRCRRFQWVDGSRWNFAWAAHQWPSRGGHCVALCTRGYW  
 RRAHCLRRLPFICSY  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIIGDFKVMGTGFPED  
 SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001302926

**ORF Size:** 666 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).

**RefSeq:** [NM\\_001302926.1](#), [NP\\_001289855.1](#)

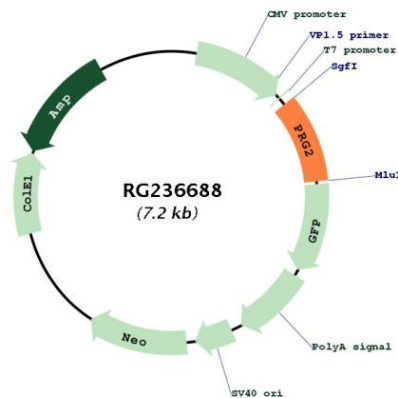
**RefSeq Size:** 1427 bp

**RefSeq ORF:** 669 bp

**Locus ID:** 5553  
**UniProt ID:** [P13727](#)  
**Cytogenetics:** 11q12.1  
**Protein Families:** Secreted Protein  
**Protein Pathways:** Asthma  
**MW:** 25.2 kDa

**Gene Summary:** The protein encoded by this gene is the predominant constituent of the crystalline core of the eosinophil granule. High levels of the proform of this protein are also present in placenta and pregnancy serum, where it exists as a complex with several other proteins including pregnancy-associated plasma protein A (PAPPA), angiotensinogen (AGT), and C3dg. This protein may be involved in antiparasitic defense mechanisms as a cytotoxin and helminthotoxin, and in immune hypersensitivity reactions. The encoded protein contains a peptide that displays potent antimicrobial activity against Gram-positive bacteria, Gram-negative bacteria, and fungi. It is directly implicated in epithelial cell damage, exfoliation, and bronchospasm in allergic diseases. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2014]

### Product images:



Circular map for RG236688