

## Product datasheet for **RC236689**

### Major Basic Protein (PRG2) (NM\_001302927) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Major Basic Protein (PRG2) (NM_001302927) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Major Basic Protein
Synonyms:	BMPG; MBP; MBP1; proMBP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC236689 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

RCATGAACTCCCCTACTTCTGGCTCTTCTATTTGGGGCAGTTTCTGCTCTTCATCTAAGGTCTGAGAC  
TTCCACCTTTGAGACCCCTTTGGGTGCTAAGACGCTGCCTGAGGATGAGGAGACACCAGAGCAGGAGATG  
GAGGAGACCCCTTGCAGGGAGCTGGAGGAAGAGGAGGAGTGGGGCTCTGGAAGTGAAGATGCCTCCAAGA  
AAGATGGGGCTGTTGAGTCTATCTCAGTGCCAGATATGGTGGACAAAAACCTTACGTGTCCTGAGGAAGA  
GGACACAGTAAAAGTGGTGGGCATCCCTGGGTGCCAGACCTGCCGCTACCTCCTGGTGAAGTCTTCAG  
ACGTTTAGTCAAGCTTGGTTTACTTGCCGGAGGTGCTACAGGGGCAACCTGGTTTCCATCCACAACCTCA  
ATATTAATTATCGAATCCAGTGTCTGTGAGCGGCTCAACCAGGGTCAAGTCTGGATTGGAGGCAGGAT  
CACAGGCTCGGGTCGCTGCAGACGCTTTCAGTGGGTTGACGGCAGCCGCTGGAACCTTTCGCTACTGGGCT  
GCTCACCAGCCCTGGTCCCGGGTGGTCACTGCGTGGCCCTGTGTACCCGAGGAGGCTACTGGCGTCGAG  
CCCCTGCCTCAGAAGACTTCCTTTCATCTGTTCTAC

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC236689 protein sequence  
Red=Cloning site Green=Tags(s)

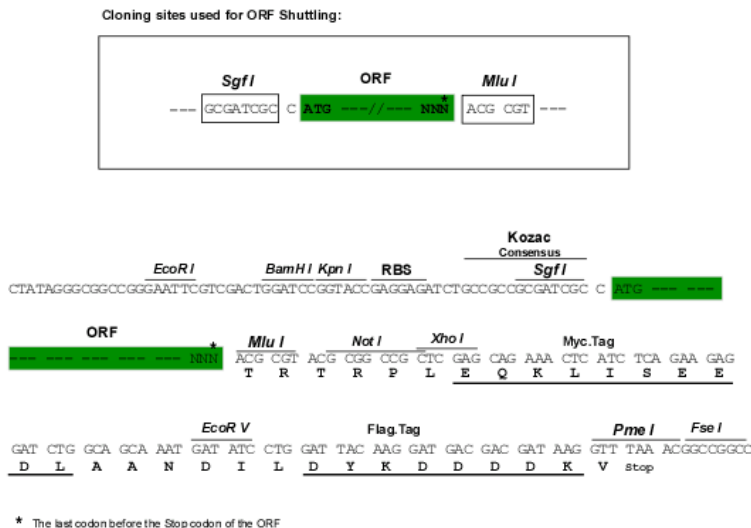
X\*NSPYFWLFYLGQFLFI\*GLRLPPLRPLWVLRRLRMRHQSRWRPLAGSWRKRSGALEVKMPPR  
 KMGLLSLSQCQIWWTKTLRVLRKRTQ\*KWWASLGARPAATSW\*EVFRRLVKLGLLAGGATGATWFPSTTS  
 ILIISSVLSARSTRVKSGLLEAGSQARVAADAFSGLTAAAGTLRTGLLTPGPAVVTAWPCVPEEATGVE  
 PTASEDFLSSVP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6050\\_f09.zip](https://cdn.origene.com/chromatograms/mk6050_f09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001302927

**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).

**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\\_001302927.1](#), [NP\\_001289856.1](#)

**RefSeq Size:** 1544 bp

**RefSeq ORF:** 669 bp

**Locus ID:** 5553

**UniProt ID:** [P13727](#)

**Cytogenetics:** 11q12.1

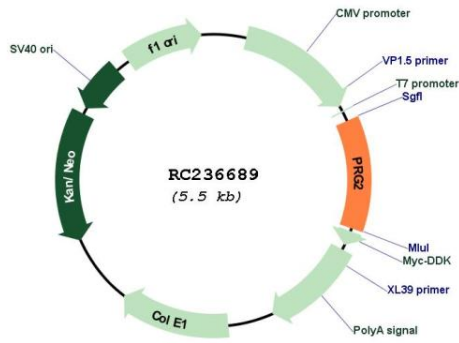
**Protein Families:** Secreted Protein

**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 RC236689