

Product datasheet for **RC203256**

Major Basic Protein (PRG2) (NM_002728) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Major Basic Protein (PRG2) (NM_002728) 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:	>RC203256 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAACTCCCCCTACTTCTGGCTCTTCTATTTGGGGCAGTTTCTGCTTTCATCTAAGGTCTGAGACTT
CCACCTTTGAGACCCCTTTGGGTGCTAAGACGCTGCCTGAGGATGAGGAGACACCAGAGCAGGAGATGGA
GGAGACCCCTTGCAGGGAGCTGGAGGAAGAGGAGGAGTGGGGCTCTGGAAGTGAAGATGCCTCCAAGAAA
GATGGGGCTGTTGAGTCTATCTCAGTGCCAGATATGGTGGACAAAACCTTACGTGTCTGAGGAAGAGG
ACACAGTAAAAGTGGTGGGCATCCCTGGGTGCCAGACCTGCCGCTACCTCCTGGTGAAGAAGTCTTCAGAC
GTTTAGTCAAGCTTGGTTTACTTGCCGGAGGTGCTACAGGGGCAACCTGGTTTCCATCCACAACCTCAAT
ATTAATTATCGAATCCAGTGTCTGTGACGCGCTCAACCAGGGTCAAGTCTGGATTGGAGGCAGGATCA
CAGGCTCGGGTCGCTGCAGACGCTTTCAGTGGGTTGACGGCAGCCGCTGGAACCTTTCGTAAGGCTGC
TCACCAGCCCTGGTCCCGCGGTGGTCACTGCGTGGCCCTGTGTACCCGAGGAGGCTACTGGCGTCGAGCC
CACTGCCTCAGAAGACTTCCTTTCATCTGTTCTAC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203256 protein sequence
 Red=Cloning site Green=Tags(s)

MKLPLLLALLFGAVSALHLRSETSTFETPLGAKTLPEDEETPEQEMEETPCRELEEEEEWGSSEDASKK
 DGAVESISVPMVDKNTCP EEEDTVKVVGIPGCQTCRYLLVRS LQTF SQAWFTCRRCYRGNLVS IHNFN
 INYRIQCSVSALNQGQVWIGGRITGSGRCRRFQWVDGSRWNFAYWAAHQ PWSRGGHCVALCTRGGYWRRA
 HCLRRLPFICSY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6050_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002728

ORF Size: 666 bp

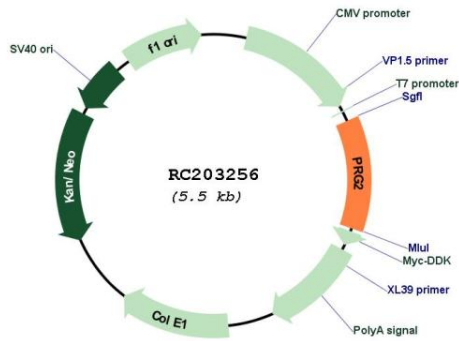
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

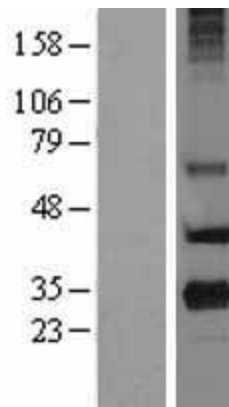
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002728.6
RefSeq Size:	874 bp
RefSeq ORF:	669 bp
Locus ID:	5553
UniProt ID:	P13727
Cytogenetics:	11q12.1
Domains:	CLECT
Protein Families:	Secreted Protein
Protein Pathways:	Asthma
MW:	25.2 kDa
Gene Summary:	<p>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]</p>

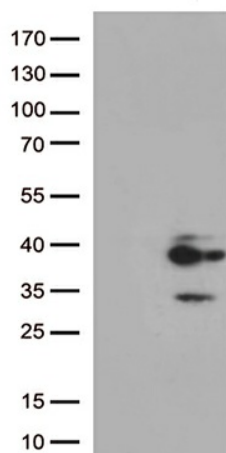
Product images:



Circular map for RC203256



Western blot validation of overexpression lysate (Cat# [LY400961]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203256 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PRG2 (Cat# RC203256, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PRG2 (Cat# [TA813062])(1:500).