

## Product datasheet for **RC209769**

### GBP4 (NM\_052941) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GBP4 (NM_052941) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GBP4
Synonyms:	Mpa2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

&gt;RC209769 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCCATGGGTGAGAGAACTCTTCACGCTGCAGTGCCACACCAGGTTATCCAGAATCTGAATCCATCATGATGG  
CCCCATTTGTCTAGTGAAAACAGGAAGAGCAGCTGACAGTGAATTCAAAGGCATTAGAGATTCTTGA  
CAAGATTTCTCAGCCCGTGGTGGTGGCCATTGTAGGGCTATACCGCACAGGAAAAATCTATCTCATG  
AATCGTCTTGACAGAAAGCGCAATGGCTTCCCTCTGGGCTCCACGGTGCAGTCTGAAACTAAGGGCATCT  
GGATGTGGTGTGTGCCACCTCTAAGCCAAACACACCCTGGTCTTCTGGACACCGAGGGCCTGGG  
CGATGTAGAAAAGAGTAACCCTAAGAATGACTCGTGGATCTTGGCCCTGGCTGTGCTTCTAAGCAGCAGC  
TTTGTCTATAACAGCGTGAGCACCATCAACCACAGGCCCTGGAGCAGCTGCACTATGTGACTGAGCTAG  
CAGAGCTAATCAGGGCAAAATCTGCCACAGCTGATGAAGCTGAGGACTCCAGCGAGTTTGCAGTCT  
CTTTCCAGACTTTATTTGGACTGTTCCGGATTTTACCCTGGAGCTAAAGTTAGATGGAAACCCATCACA  
GAAGATGAGTACCTGGAGAATGCCTTGAAGCTGATTCAGGCAAGAATCCAAAAATTCAAAAATCAAACA  
TGCCCTAGAGAGTGTATCAGGCATTTCTCCGAAAACGGAAGTGCTTTGTCTTTGACCGGCCCTACAAATGA  
CAAGCAATATTTAAATCATATGGACGAAGTGCCAGAAGAAAATCTGAAAAGGCATTTCTTATGCAATCA  
GACAACTTCTGTTCTTATATCTTACCCATGCAAAGACCAAGACCCTGAGAAAAGGGAATCATTGTCACTG  
GAAAGCGGCTGGGACTCTGGTGGTGACTTATGTAGATGCCATCAACAGTGGAGCAGTACCTTGTCTGGA  
GAATGCAGTGACAGCACTGGCCAGCTTGAGAACCAGCGGCTGTGCAGAGGGCAGCCGACCACTATAGC  
CAGCAGATGGCCAGCAACTGAGGCTCCACAGACAGCTCCAGGAGCTGCTGGACGTGCATGCAGCCT  
GTGAGAGGGAAGCCATTGCAGTCTTCAATGGAGCACTCTTCAAGGATGAAAACCATGAATCCAGAAGAA  
GCTTGTGGACACCATAGAGAAAAAGAAGGAGACTTTGTGCTGCAGAATGAAGAGGCATCTGCCAAATAT  
TGCCAGGCTGAGCTTAAGCGGCTTTCAGAGCACCTGACAGAAAAGCATTTTGAAGGAATTTTCTCTGTTT  
CTGGAGGACACAATCTCTACTTAGAAGAAAAGAAACAGGTTGAGTGGGACTATAAGCTAGTGCCAGAAA  
AGGAGTTAAGGCAAACGAGGCTCTCCAGAACTTCTGCAGTACAGGTGGTTGTAGAGGAATCCATCCTG  
CAGTCAGACAAAGCCCTCACTGCTGGAGAGAAGTCCATAGCAGCGGAGCGGGCCATGAAGGAAGCAGCTG  
AGAAGGAACAGGAGCTGCTAAGAGAAAAACAGAAGGAGCAGCAGCAAATGATGGAGGCTCAAGAGAGAAG  
CTTCCAGGAATACATGGCCAAATGGAGAAGAAGTTGGAGGAGGAAAGGAAAACCTTCTCAGAGAGCAT  
GAAAGGCTGCTAAAACACAAGCTGAAGGTACAAGAAGAAATGCTTAAAGGAAGATTTCAAAGAAATCTG  
AGCAGTTAAATAAGAGATTAATCAACTGAAAGAAAAAATGAAAGCACTAAAAATGAACAGTTAAGGCT  
CTTAAAGATCCTTGACATGGCTAGCAACATAATGATTGTCACTCTACCTGGGGCTTCCAAGCTACTTGGA  
GTAGGGACAAAATATCTTGGCTCACGTATTACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:** >RC209769 protein sequence  
Red=Cloning site Green=Tags(s)

MGERTLHAAVPTPGYPESESIMMAPICLVENQEEQLTVNSKALEILDKISQPVVVVAIVGLYRTGKSYLM  
 NRLAGKRNGFPLGSTVQSETKGIWMWCVPHLSKPNHTLVLLDTEGLGDVEKSNPKNDSWIFALAVLLSSS  
 FVYNSVSTINHQALEQLHYVTELAELIRAKSCRPDEAEDSSEFASFPPDFIWTVRDFTLELKL DGNPIT  
 EDEYLENALKLIPGKNPKIQNSNMPRECIRHFFRKRKCFVFDPRPTNDKQYLNHMDEVPEENLERHFLMQS  
 DNFCSYIFTHAKTKLRKGIIVTGKRLGTLVVTVYVDAINS GAVPLENAV TALAQLENPAAVQRAADHYS  
 QQMAQQLRLPTDTLQELLDVHAACEREIAVFMESFKDENHEFQKLVDTIEKKKGDFVLQNEEASAKY  
 CQAE LKRLSEHLTESILRGIFSVPGGHNLYLEEKKQVEWDYKLVPRKGVKANEVLQNFLQSQVVVEESIL  
 QSDKAL TAGEKSI AAERAMKEAAEKEQELLREKQKEQQQMMEAQERSFQEYMAQMEKKLEERENLLREH  
 ERL LKHKLKVQEEMLKEEFQKKSEQLNKEINQLKEIESTKNEQLRL LKILDMASNIMIVTLPGASKLLG  
 VGTKYLSRI

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6148\\_e07.zip](https://cdn.origene.com/chromatograms/mk6148_e07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_052941

**ORF Size:** 1920 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\\_052941.5](#)

**RefSeq Size:** 6160 bp

**RefSeq ORF:** 1923 bp

**Locus ID:** 115361

**UniProt ID:** [Q96PP9](#)

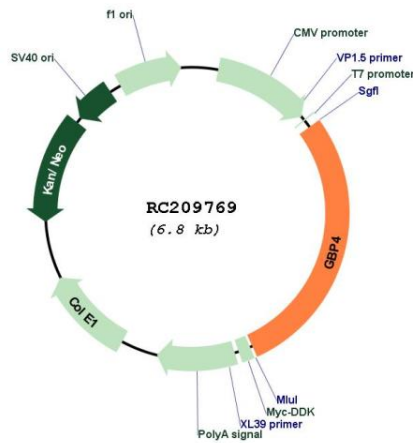
**Cytogenetics:** 1p22.2

**Domains:** GBP

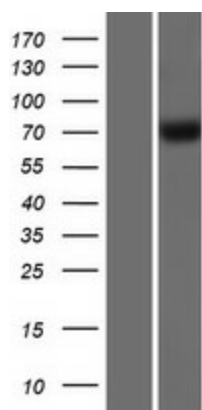
**MW:** 73.2 kDa

**Gene Summary:** Guanylate-binding proteins, such as GBP4, are induced by interferon and hydrolyze GTP to both GDP and GMP (Vestal, 2005 [PubMed 16108726]).[supplied by OMIM, Dec 2008]

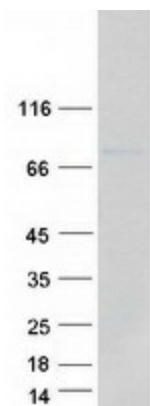
**Product images:**



Circular map for RC209769



Western blot validation of overexpression lysate (Cat# [LY409376]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209769 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GBP4 protein (Cat# [TP309769]). The protein was produced from HEK293T cells transfected with GBP4 cDNA clone (Cat# RC209769) using MegaTran 2.0 (Cat# [TT210002]).