

## Product datasheet for **RC209939**

### **GBP2 (NM\_004120) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	GBP2 (NM_004120) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GBP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC209939 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTCCAGAGATCAACTTGCCTGGCCCAATGAGCCTCATTGATAACACTAAAGGGCAGCTGGTGGTGA  
 ATCCAGAAGCTCTGAAGATCCTATCTGCAATTACGCAGCCTGTGGTGGTGGCGATTGTGGCCCTCTA  
 TCGCACAGGCAAATCCTACCTGATGAACAAGCTGGCTGGGAAGAAAAACGGCTTCTCTAGGCTCCACA  
 GTGAAGTCTCACACCAAGGGAATCTGGATGTGGTGTGCCTCATCCCAAGAAGCCAGAACACACCTAG  
 TTCTGCTCGACTGAGGGCCTGGGAGATATAGAGAAGGGTGACAATGAGAATGACTCCTGGATCTTTGC  
 CTTGGCCATCCTCTGAGCAGCACCTTCGTGTACAATAGCATGGGAACCATCAACCAGCAGGCCATGGAC  
 CAACTTCACTATGTGACAGAGCTGACAGATCGAATCAAGGCAAACCTCACCTGGTAACAATTCTGTAG  
 ACGACTCAGCTGACTTTTGTGAGCTTTTTCCAGCATTGTGTGGACTCTCAGAGATTTACCTGGAAC  
 GGAAGTAGATGGAGAACCATCACTGCTGATGACTACTTGGAGCTTCGCTAAAGCTAAGAAAAGGTA  
 GATAAGAAAAGTAAAAGCTTTAATGATCCTCGGTTGTGCATCCGAAAGTTCTTCCCAAGAGGAAGTGT  
 TCGTCTTCGATTGGCCCGCTCCTAAGAAGTACCTTGTCACTAGAGCAGCTAAAGGAGGAAGAGCTGAA  
 CCCTGATTTTATAGAACAAGTTGCAGAATTTTGTTCCTACATCCTCAGCCATTCCAATGTCAAGACTCT  
 TCAGGTGGCATTCCAGTCAATGGCCCTCGTCTAGAGAGCCTGGTGTGACCTACGTCAATGCCATCAGCA  
 GTGGGGATCTACCTGCAGGGAGAACGCAGTCTGGCCTTGGCCAGATAGAGAAGTCAAGCCAGTGGAA  
 AAAGGCTATTGCCACTATGAACAGCAGATGGCCAGAAGGTGCAGCTGCCACGGAAACCTCCAGGAG  
 CTGCTGGACCTGCACAGGGACAGTGAGAGAGAGGCCATTGAAGTCTTCAAGAAGTCTTTCAAGGATG  
 TGGACCAATGTTCCAGAGGAAATTAGGGGCCAGTTGGAAGCAAGGCGAGATGACTTTTGAAGCAGAA  
 TTCCAAAGCATCATCAGATTGTTGCATGGCTTTACTTCAGGATATATTTGGCCCTTTAGAAGAAGATGTC  
 AAGCAGGGAACATTTTCTAAACCAGGAGGTTACCGTCTTTTACTCAGAAGCTGCAGGAGCTGAAGAATA  
 AGTACTACCAGGTGCCAAGGAAGGGGATACAGGCCAAAGAGGTGCTGAAAAAATATTTGGAGTCCAAGGA  
 GGATGTGGCTGATGCACTTCTACAGACTGATCAGTCACTCTCAGAAAAGGAAAAAGCGATTGAAGTGAA  
 CGTATAAAGGCTGAATCTGCAGAAGCTGCAAAAGAAAATGTTGGAGGAAATACAAAAGAAGATGAGGAGA  
 TGATGGAACAGAAAGAGAAGGTTATCAGGAACATGTGAAACAATTGACTGAGAAGATGGAGAGGGACAG  
 GGCCAGTTAATGGCAGAGCAAGAGAAGACCCTCGCTCTTAACTTCAGGAACAGGAACGCCTTCTCAAG  
 GAGGGATTCGAGAATGAGAGCAAGAGACTTCAAAAAGACATATGGGATATCCAGATGAGAAGCAAATCAT  
 TGGAGCCAATATGTAACATACT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209939 protein sequence  
 Red=Cloning site Green=Tags(s)

MAPEINLPGPMSLIDNTKGQLVFNPEALKILSAITQPVVVVAIVGLYRTGKSYLMNKLAKKNGFSLGST  
 VKSHTKGIWMCVPHPKPEHTLVLLDTEGLDIEKGDNENDSWIFALAILLSSTFVYNSMGTINQQAMD  
 QLHYVTELTDRIKANSSPGNNSVDDSDAFVSFFPAFVWTLRDFLELEVDGEPITADDYLELSLKLKRG  
 DKKSKSFNDPRLCIRKFFPKRCFVFDWPAPKYLALHLEQLKEEELNPDFIEQVAEFCSYILSHSNVKT  
 SGGIPVNGPRLSLVLYVNAISSGDLPCRENAVLAQAQIENSAAVEKAIHAYEQMQKQVQLPTETLQE  
 LLDLHRDSEREAIEVFMKNSFKDQVDFQRKLGALARRDDFCQNSKASSDCCMALLQDIFGPLEEDV  
 KQGTFSKPGGYRLFTQKLQELKNKYYQVPRKGIQAKEVLKYLESKEDVADALLQTDQSLSEKEAIEVE  
 RIKAESAEAAKMLEEIQKKNEMMEQKEKSYQEHVKQLTEKMERDRAQLMAEQEKLALKLQEQRLLK  
 EGFENESKRLQKDIWDIQMRSKSLEPICNIL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6005\\_e12.zip](https://cdn.origene.com/chromatograms/mk6005_e12.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_004120

ORF Size: 1773 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\\_004120.5](#)

RefSeq Size: 4148 bp

RefSeq ORF: 1776 bp

Locus ID: 2634

UniProt ID: [P32456](#)

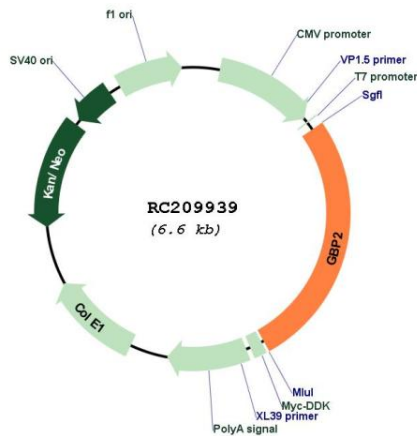
Cytogenetics: 1p22.2

Domains: GBP

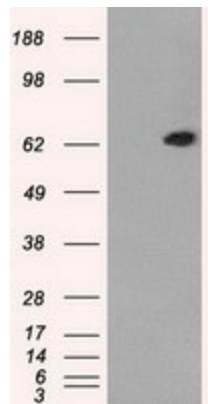
MW: 67.2 kDa

**Gene Summary:** This gene belongs to the guanine-binding protein (GBP) family, which includes interferon-induced proteins that can bind to guanine nucleotides (GMP, GDP and GTP). The encoded protein is a GTPase which hydrolyzes GTP, predominantly to GDP. The protein may play a role as a marker of squamous cell carcinomas. [provided by RefSeq, Jul 2013]

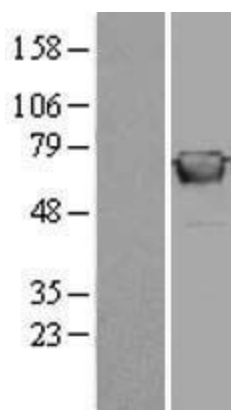
**Product images:**



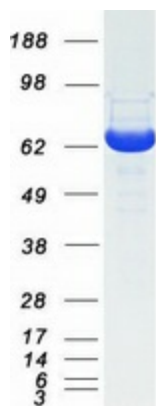
Circular map for RC209939



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GBP2 (Cat# RC209939, 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-GBP2 (Cat# [TA500640]). Positive lysates [LY401329] (100ug) and [LC401329] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401329]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209939 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GBP2 protein (Cat# [TP309939]). The protein was produced from HEK293T cells transfected with GBP2 cDNA clone (Cat# RC209939) using MegaTran 2.0 (Cat# [TT210002]).