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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 »

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ORF Nucleotide Sequence:

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTCCAGAGATCAACTTGCCGGGCCCAATGAGCCTCATTGATAACACTAAAGGGCAGCTGGTGGTGA
ATCCAGAAGCTCTGAAGATCCTATCTGCAATTACGCAGCCTGTGGTGGTGGTGGCGATTGTGGGCCTCTA
TCGCACAGGCAAATCCTACCTGATGAACAAGCTGGCTGGGAAGAAAAACGGCTTCTCTCTAGGCTCCACA
GTGAAGTCTCACACCAAGGGAATCTGGATGTGGTGTGTGCCTCATCCCAAGAAGCCAGAACACACCCTAG
TTCTGCTCGACACTGAGGGCCTGGGAGATATAGAGAAGGGTGACAATGAGAATGACTCCTGGATCTTTGC
CTTGGCCATCCTCCTGAGCAGCACCTTCGTGTACAATAGCATGGGAACCATCAACCAGCAGGCCATGGAC
CAACTTCACTATGTGACAGAGCTGACAGATCGAATCAAGGCAAACTCCTCACCTGGTAACAATTCTGTAG
ACGACTCAGCTGACTTTGTGAGCTTTTTTCCAGCATTTGTGTGGACTCTCAGAGATTTCACCCTGGAACT
GGAAGTAGATGGAGAACCCATCACTGCTGATGACTACTTGGAGCTTTCGCTAAAGCTAAGAAAAGGTACT
GATAAGAAAAGTAAAAGCTTTAATGATCCTCGGTTGTGCATCCGAAAGTTCTTCCCCAAGAGGAAGTGCT
TCGTCTTCGATTGGCCCGCTCCTAAGAAGTACCTTGCTCACCTAGAGCAGCTAAAGGAGGAAGAGCTGAA
CCCTGATTTCATAGAACAAGTTGCAGAATTTTGTTCCTACATCCTCAGCCATTCCAATGTCAAGACTCTT
TCAGGTGGCATTCCAGTCAATGGGCCTCGTCTAGAGAGCCTGGTGCTGACCTACGTCAATGCCATCAGCA
GTGGGGATCTACCCTGCAGGGAGAACGCAGTCCTGGCCTTGGCCCAGATAGAGAACTCAGCCGCAGTGGA
AAAGGCTATTGCCCACTATGAACAGCAGATGGGCCAGAAGGTGCAGCTGCCCACGGAAACCCTCCAGGAG
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TGGACCAAATGTTCCAGAGGAAATTAGGGGCCCAGTTGGAAGCAAGGCGAGATGACTTTTGTAAGCAGAA
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AGTACTACCAGGTGCCAAGGAAGGGGATACAGGCCAAAGAGGTGCTGAAAAAATATTTGGAGTCCAAGGA
GGATGTGGCTGATGCACTTCTACAGACTGATCAGTCACTCTCAGAAAAGGAAAAAGCGATTGAAGTGGAA
CGTATAAAGGCTGAATCTGCAGAAGCTGCAAAGAAAATGTTGGAGGAAATACAAAAGAAGAATGAGGAGA
TGATGGAACAGAAAGAGAAGAGTTATCAGGAACATGTGAAACAATTGACTGAGAAGATGGAGAGGGACAG
GGCCCAGTTAATGGCAGAGCAAGAGAAGACCCTCGCTCTTAAACTTCAGGAACAGGAACGCCTTCTCAAG
GAGGGATTCGAGAATGAGAGCAAGAGACTTCAAAAAGACATATGGGATATCCAGATGAGAAGCAAATCAT
TGGAGCCAATATGTAACATACTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

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

MAPEINLPGPMSLIDNTKGQLVVNPEALKILSAITQPVVVVAIVGLYRTGKSYLMNKLAGKKNGFSLGST
VKSHTKGIWMWCVPHPKKPEHTLVLLDTEGLGDIEKGDNENDSWIFALAILLSSTFVYNSMGTINQQAMD
QLHYVTELTDRIKANSSPGNNSVDDSADFVSFFPAFVWTLRDFTLELEVDGEPITADDYLELSLKLRKGT
DKKSKSFNDPRLCIRKFFPKRKCFVFDWPAPKKYLAHLEQLKEEELNPDFIEQVAEFCSYILSHSNVKTL
SGGIPVNGPRLESLVLTYVNAISSGDLPCRENAVLALAQIENSAAVEKAIAHYEQQMGQKVQLPTETLQE
LLDLHRDSEREAIEVFMKNSFKDVDQMFQRKLGAQLEARRDDFCKQNSKASSDCCMALLQDIFGPLEEDV
KQGTFSKPGGYRLFTQKLQELKNKYYQVPRKGIQAKEVLKKYLESKEDVADALLQTDQSLSEKEKAIEVE
RIKAESAEAAKKMLEEIQKKNEEMMEQKEKSYQEHVKQLTEKMERDRAQLMAEQEKTLALKLQEQERLLK
EGFENESKRLQKDIWDIQMRSKSLEPICNIL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6005_e12.zip

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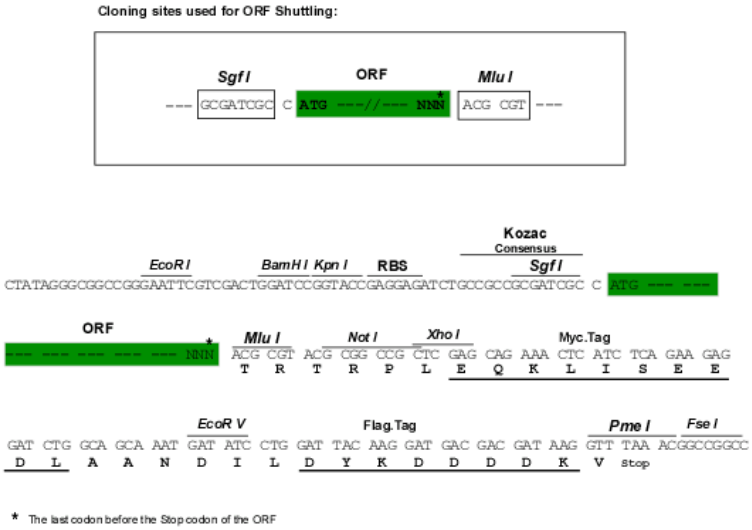
Restriction Sites: SgfI-MluI

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_004120.5

RefSeq Size: 4148 bp

RefSeq ORF: 1776 bp

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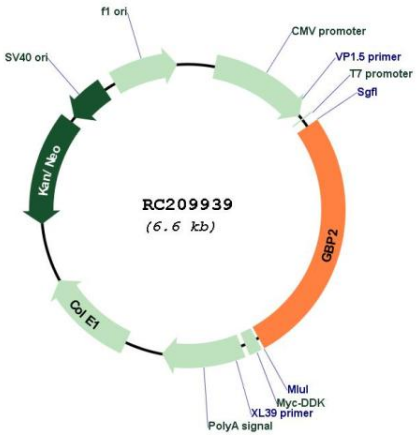
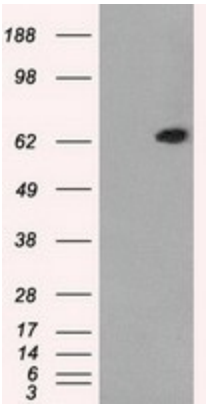
Locus ID:	2634
UniProt ID:	P32456
Cytogenetics:	1p22.2
Domains:	GBP
MW:	67.2 kDa
Gene Summary:	This gene belongs to the guanine-binding protein (GBP) family, which includes interferon-induced proteins that can bind to guanine nucleotides (GMP, GDP and GTP). The encoded protein is a GTPase which hydrolyzes 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.

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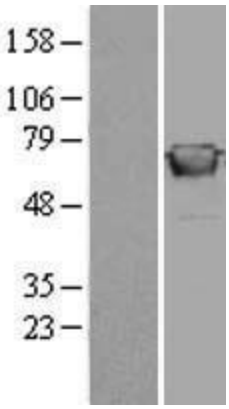
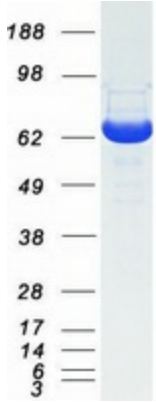


Western blot validation of overexpression lysate (Cat# [LY401329]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209939 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



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]).

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