

Product datasheet for **RC206627**

GBP5 (NM_052942) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GBP5 (NM_052942) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GBP5
Synonyms:	GBP-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206627 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTTTAGAGATCCACATGTGACACCCCATGTGCCTCATCGAGAAGTTAATGAGCAGCTGAAGTTA
 ATCAGGAAGCTTTGGAGATCCTGTCTGCCATTACGCAACCTGTAGTTGTGGTAGCGATTGTGGCCCTCA
 TCGCACTGGCAAATCCTACCTGATGAACAAGCTGGCTGGGAAGAACAAGGCTTCTCTGTTGCATCTACG
 GTGCAGTCTCACACCAAGGGAATTTGGATATGGTGTGTGCCTCATCCCACTGGCCAAATCACACATTAG
 TTCTGCTTGACACCGAGGCTGGGAGATGTAGAGAAGGCTGACAACAAGAATGATATCCAGATCTTTGC
 ACTGGCACTCTTACTGAGCAGCACCTTTGTGTACAATACTGTGAACAAAATTGATCAGGGTCTATCGAC
 CTACTGCACAATGTGACAGAAGTACAGATCTGCTCAAGGCAAGAACTCACCCGACCTTGACAGGGTTG
 AAGATCCTGCTGACTCTGCGAGCTTCTCCAGACTTAGTGTGGACTCTGAGAGATTTCTGCTTAGGCCCT
 GGAATAGATGGCAACTTGTACACCAGATGAATACCTGGAGAATCCCTAAGGCCAAAGCAAGGTAGT
 GATCAAAGAGTTCAAATTTCAATTTGCCCGTCTGTGTATACAGAAGTTCTTTCCAAAAAGAAATGCT
 TTATCTTTGACTTACCTGCTCACCAAAAAAGCTTGCCCAACTTGAAACACTGCCTGATGATGAGCTAGA
 GCCTGAATTTGTGCAACAAGTGACAGAATCTGTTCTACATCTTTAGCCATTCTATGACCAAGACTCTT
 CCAGGTGGCATCATGGTCAATGGATCTCGTCTAAAGAACCTGGTGTGACCTATGTCAATGCCATCAGCA
 GTGGGGATCTGCCTTGCATAGAGAATGCAGTCTGGCCTTGGCTCAGAGAGAGAAGTCAAGTGCAGTGA
 AAAGGCCATTGCCACTATGACCAGCAATGGCCAGAAAGTGCAGCTGCCATGGAAACCTCCAGGAG
 CTGCTGGACCTGCACAGGACAGTGAAGGGAGGCCATTGAAGTCTTCAAGAACTCTTCAAGGATG
 TAGACCAAAGTTCCAGAAAGAATTGGAGACTCTACTAGATGCAAAACAGAATGACATTTGTAACAGGAA
 CCTGGAAGCATCCTCGGATTATTGCTCGGCTTTACTTAAGGATATTTTTGGTCTCTAGAAGAAGCAGTG
 AAGCAGGGAATTTATTCTAAGCCAGGAGCCATATCTCTTCAATCAGAAAACAGAGAAGTGAAGGCAA
 AGTACTATCGGGAGCCTCGGAAAGGAATACAGGCTGAAGAAGTTCTGCAGAAATATTTAAAGTCCAAGGA
 GTCTGTGAGTCATGCAATATTACAGACTGACCAGGCTCTCACAGAGACGGAAAAAAGAAGAAAGAGGCA
 CAAGTGAAAGCAGAAGCTGAAAAGGCTGAAGCGCAAAGGTTGGCGGCGATTCAAAGGCAGAACGAGCAAA
 TGATGCAGGAGAGGGAGAGACTCCATCAGGAACAAGTGAAGCAATGGAGATAGCCAAACAAAATTTGGCT
 GGCAGAGCAACAGAAAATGCAGGAACAACAGATGCAGGAACAGGCTGCACAGCTCAGCACAAACATCCAA
 GCTCAAATAGAAGCCTTCTCAGTGAGCTCCAGCACGCCAGAGGACTGTTAATAACGATGATCCATGTG
 TTTTACTC

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206627 protein sequence
 Red=Cloning site Green=Tags(s)

MALEIHMSDPMCLIEINFNEQLKVNQEALEILSAITQPVVVVAIVGLYRTGKSYLMNKLAKGNKGFVSVAST
 VQSHTKGIWIWCVPHNPNHTLVLLDTEGLGDVEKADNKNDIQIFALALLLSSTFVYNTVKNIDQGAID
 LLHNVTETDILLKARNSPDLDRVEDPADSASFPPDLVWTLRDFCLGLEIDGQLVTPDEYLENSLRPKQGS
 DQRVQNFNLPRLCIQKFFPKKCFIFDLPQHKKLAQLETLPDDELEPEFVQVTEFCYSYIFSHSMTKTL
 PGGIMVNGSRLKNLVLYVNAISSGDLPCIEAVLALAQRENSAAVQKAI AHYDQMQGQKVLPMETLQE
 LLDLHRTSEREAIEVFMKNSFKVDVQSFQKELETLDDAKQNDICKRNLEASSDYCSALLKDFGPLEEAV
 KQGIYSKPGGHNLFIQKTEELKAKYYREPRKGIQAEVLEKQYKLSKESVSHAILQTDQALTETEKKKKEA
 QVKAEAEKAEARLAAIQRQNEQMMQERERLHQEQVRQMEIAKQNWLAEQQKMQEQMQEQAAQLSTTFQ
 AQNRSLSELQHAQRTVNNDDPCVLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6279_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_052942

ORF Size: 1758 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_052942.4](#)

RefSeq Size: 4065 bp

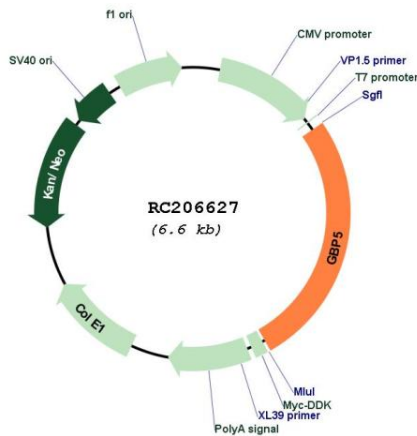
RefSeq ORF: 1761 bp

Locus ID: 115362

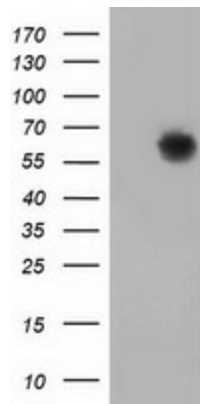
UniProt ID: [Q96PP8](#)
Cytogenetics: 1p22.2
Domains: GBP
MW: 66.6 kDa

Gene Summary: This gene belongs to the TRAFAC class dynamin-like GTPase superfamily. The encoded protein acts as an activator of NLRP3 inflammasome assembly and has a role in innate immunity and inflammation. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2017]

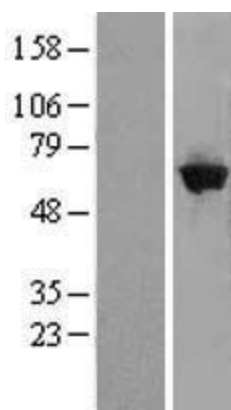
Product images:



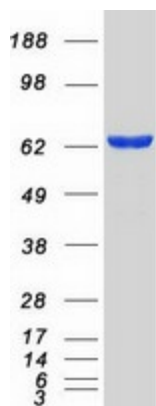
Circular map for RC206627



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GBP5 (Cat# RC206627, 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-GBP5 (Cat# [TA502286]). Positive lysates [LY409377] (100ug) and [LC409377] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY427458]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225986] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GBP5 protein (Cat# [TP306627]). The protein was produced from HEK293T cells transfected with GBP5 cDNA clone (Cat# RC206627) using MegaTran 2.0 (Cat# [TT210002]).