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Product datasheet for MG207441

G3bp1 (NM_013716) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	G3bp1 (NM_013716) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	G3bp1
Synonyms:	AI849976; B430204O07; C87777; G3bp; mKIAA4115
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>MG207441 representing NM_013716
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTTATGGAGAAGCCTAGTCCCCTGCTGGTCGGGCGGGAGTTTGTGCGACAGTACTACACCCTGCTGA
ACCAGGCCCCGGACATGCTGCACAGATTTTATGGAAAGAACTCTTCCTATGCCCACGGGGGCTTGGATTC
CAACGGGAAGCCAGCAGATGCAGTCTACGGGCAGAAGGAAATCCACAGGAAAGTGATGTCACAAAACTTC
ACCAACTGCCACACCAAGATCCGCCACGTGGATGCTCACGCAACTCTGAATGACGGGGTGGTGGTCCAAG
TGATGGGGCTACTGTCCAACAACAACCAGGCTCTGCGGAGGTTCATGCAGACCTTTGTCCTTGCTCCTGA
GGGCTCTGTTGCCAACAAATTCTATGTTCACAACGACATCTTCAGGTACCAAGATGAGGTCTTCGGTGGC
TTTGTCACAGAGCCTCAAGAGGAATCCGAGGAAGAAGTAGAAGAACCTGAAGAAAGACAGCAGACACCAG
AGGTGGTGCCTGATGATTCTGGAACTTTCTATGATCAGACTGTCAGCAATGACTTGGAGGAGCATTTAGA
GGAGCCTGTAGTGGAACCAGAACCGGAGCCAGAGCCGGAGCCGGAGCCGGAACCTGTGTCCGACATTCAA
GAGGACAAGCCTGAGGCTGCATTGGAAGAAGCTGCTCCCGACGATGTGCAGAAGAGCACTTCCCCGGCCC
CGGCTGACGTGGCCCCGGCACAGGAGGACTTGAGGACGTTTTCTTGGGCATCTGTGACGAGTAAGAACCT
TCCTCCCAGTGGGGCTGTTCCAGTGACGGGGACACCACCTCATGTGGTCAAAGTGCCAGCGTCACAGCCC
CGTCCAGAATCTAAACCTGACTCTCAGATCCCACCACAAAGGCCTCAGAGAGATCAGAGAGTTCGAGAGC
AGCGAATCAATATCCCTCCTCAGAGAGGACCCCGACCAATCCGTGAGGCTGGTGAACCAGGAGATGTGGA
ACCTCGAAGGATGGTGAGGCACCCTGACAGTCACCAGCTCTTCATTGGGAACCTGCCACATGAGGTTGAC
AAGTCGGAACTGAAGGATTTTTTCCAAAATTTTGGCAATGTGGTGGAGCTGCGCATCAACAGTGGTGGGA
AGTTACCCAATTTCGGTTTTGTTGTGTTTGATGATTCTGAACCTGTTCAGAAGGTCCTTAGTAATAGGCC
CATCATGTTCCGAGGCGCGGTCCGCCTGAATGTGGAAGAGAAGAAGACTCGAGCTGCCAGAGAAGGCGAC
CGCAGGGATAACCGCCTTCGGGGACCTGGAGGCCCCCGTGGTGGGCCGAGTGGTGGGATGAGAGGCCCTC
CCCGCGGAGGCATGGTGCAGAAACCAGGCTTTGGCGTGGGCAGGGGGATTACAACTCCAAGGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

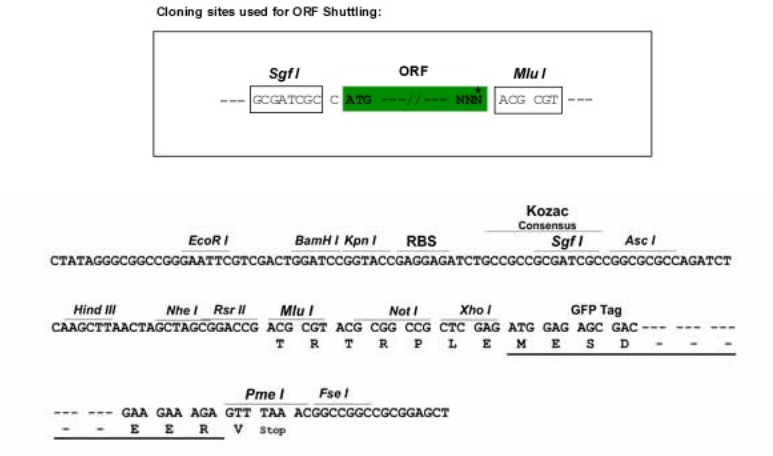
>MG207441 representing NM_013716
Red=Cloning site Green=Tags(s)

MVMEKPSPLLVGREFVRQYYTLLNQAPDMLHRFYGKNSSYAHGGLDSNGKPADAVYGQKEIHRKVMSQNF
TNCHTKIRHVDAHATLNDGVVVQVMGLLSNNNQALRRFMQTFVLAPEGSVANKFYVHNDIFRYQDEVFGG
FVTEPQEESEEEVEEPEERQQTPEVVPDDSGTFYDQTVSNDLEEHLEEPVVEPEPEPEPEPEPEPVSDIQ
EDKPEAALEEAAPDDVQKSTSPAPADVAPAQEDLRTFSWASVTSKNLPPSGAVPVTGTPPHVVKVPASQP
RPESKPDSQIPPQRPQRDQRVREQRINIPPQRGPRPIREAGEPGDVEPRRMVRHPDSHQLFIGNLPHEVD
KSELKDFFQNFGNVVELRINSGGKLPNFGFVVFDDSEPVQKVLSNRPIMFRGAVRLNVEEKKTRAAREGD
RRDNRLRGPGGPRGGPSGGMRGPPRGGMVQKPGFGVGRGITTPRQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_013716

ORF Size: 1395 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

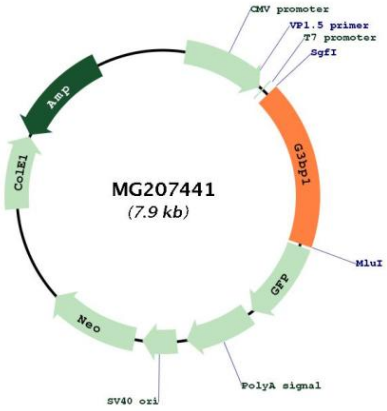
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_013716.2, NP_038744.1

RefSeq Size:	2685 bp
RefSeq ORF:	1398 bp
Locus ID:	27041
UniProt ID:	P97855
Cytogenetics:	11 B1.3
Gene Summary:	ATP- and magnesium-dependent helicase that plays an essential role in innate immunity. Participates in the DNA-triggered cGAS/STING pathway by promoting the DNA binding and activation of CGAS. Enhances also DDX58-induced type I interferon production probably by helping DDX58 at sensing pathogenic RNA. In addition, plays an essential role in stress granule formation. Unwinds preferentially partial DNA and RNA duplexes having a 17 bp annealed portion and either a hanging 3' tail or hanging tails at both 5'- and 3'-ends. Unwinds DNA/DNA, RNA/DNA, and RNA/RNA substrates with comparable efficiency. Acts unidirectionally by moving in the 5' to 3' direction along the bound single-stranded DNA. Phosphorylation-dependent sequence-specific endoribonuclease in vitro (PubMed:11604510). Cleaves exclusively between cytosine and adenine and cleaves MYC mRNA preferentially at the 3' UTR (PubMed:11604510).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG207441