

Product datasheet for **MG207405**

Igh (BC031470) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Igh (BC031470) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Igh
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG207405 representing BC031470 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACTTGAGACTGAGCTGTGCTTTTATTATTGTTCTTTTAAAAGGGTCCAGAGTGAAGTGAAGCTTG
AGGAGTCTGGAGGAGGCTTGGTGAACCTGGAGGATCCATGAACTCTCCTGTGTAGCCTCTGGATTCAC
TTTCAGTAACTCCTGGATGAACGGGTCGCCAGTCTCCAGAGAAGGGGCTTGAGTGGGTGTCTCAAATT
AGATTGAGATCTGATAATTATGCAACACATTATGCGGAGTCTGTGAAAGGGAGGTTACCATTCTCAAGAG
ATGATTCAAAAGTCGTCTACCTGCAAATGAGCAGTTAAGGGCTGAAGACACTGGAATTTTACTG
CACAAATGCTATGGACTACTGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCA
TCGGTCTATCCACTGGCCCTGTGTGTGGAGATACAACCTGGCTCCTCGGTGACTCTAGGATGCCTGGTCA
AGGGTTATTTCCCTGAGCCAGTGACCTTGAACTCTGGATCCCTGTCCAGTGGTGTGCACACCTT
CCCAGCTGTCTGCAGTCTGACCTCTACACCTCAGCAGCTCAGTGACTGTAACCTCGAGCACCTGGCCC
AGCCAGTCCATCACCTGCAATGTGGCCACCCGCAAGCAGCACCAAGGTGGACAAGAAAATTGAGCCCA
GAGGGCCCAATCAAGCCCTGCCTCCATGCAAATGCCAGCACCTAACCTCTGGGTGGACCATCCGT
CTTCATCTCCCTCAAAGATCAAGGATGACTCATGATCTCCCTGAGCCCCATGGTACATGTGTGGT
GTGGATGTGAGCGAGGATGACCCAGATGTCAGATCAGCTGGTTCGTGAACAACGTGGAAGTACTCACAG
CTCAGACACAAACCCATAGAGAGGATTACAACAGTACTCTCCGGTGGTCAAGTCCCTCCCATCCAGCA
CCAGGACTGGATGAGTGGCAAGGAGTTCAAATGCAAGGTCAACAACAAAGCCCTCCAGCGCCCATCGAG
AGAACCATCTCAAAACCCAAAGGGTCAAGAGTCCACAGGTATATGTCTTGCCTCCACCAGAAGAAG
AGATGACTAAGAAACAGGTCACTCTGACCTGCATGGTCAAGACTTATGCCTGAAGACATTTACGTGGA
GTGGACCAACAACGGGAAAACAGAGCTAACTACAAGAACACTGAACAGTCTGGACTCTGATGTTCT
TACTTCATGTACAGCAAGCTGAGAGTGGAAAAGAAGTGGGTGAAAGAAATAGCTACTCCTGCTCAG
TGGTCCACGAGGGTCTGCACAATCACACACGACTAAGAGCTTCTCCCGACTCCGGGTAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG207405 representing BC031470
 Red=Cloning site Green=Tags(s)

MDLRLSCAFIIVLLKGVQSEVKLEESGGGLVQPGGSMKLSCVASGFTFSNSWMNWVRQSPEKGLEWVAQI
 RLRSDNYATHYAESVKGRFTISRDDSKSRLYLQMSLRAEDTGIYYCTNAMDYWGQGTSVTVSSAKTTAP
 SVYPLAPVCGDTTGSSVTLGCLVKGYFPEPVTLTWNSGSLSSGVHTFPAVLQSDLYTLSSSVTVTSSTWP
 SQSITCNVAHPASSTKVDKKEIEPRGPTIKPCPPCKCPAPNLLGGPSVFIFFPKIKDVLMIKSLSPMVTQV
 VDVSIEDDPDVQISWVFNNEVLTAAQTQTHREDYNSTLRVVSALPIQHQDWMMSGKEFKCKVNNKALPAPIE
 RTISKPKGSRAPQVYVLPPEEEMTKQVTLTCMVTDFMPEDIYVEWTNNGKTELNYKNTPEVLDSGDS
 YFMYSKLRVEKKNWVERNSYSCSVVHEGLHHHTTKSFSRTPGK

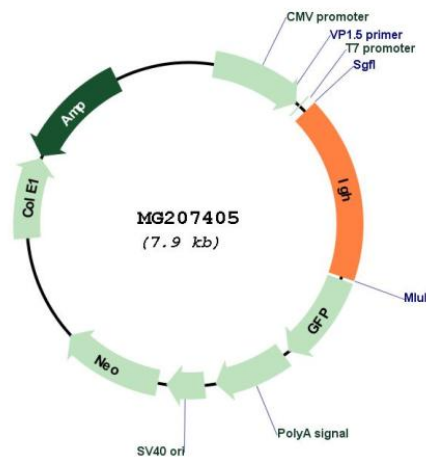
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC031470

ORF Size: 1394 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: [BC031470](#)

RefSeq Size: 1658 bp

RefSeq ORF: 1394 bp

Locus ID: 111507

Cytogenetics: 12 F1-F2|12

Gene Summary:

Summary: Immunoglobulins recognize foreign antigens and initiate immune responses such as phagocytosis and the complement system. Each immunoglobulin molecule consists of two identical heavy chains and two identical light chains. This region represents the germline organization of the heavy chain locus. The locus includes V (variable), D (diversity), J (joining), and C (constant) segments. During B cell development, a recombination event at the DNA level joins a single D segment with a J segment; this partially rearranged D-J gene is then joined to a V segment. The rearranged V-D-J is then transcribed with the IGHM constant region; this transcript encodes a mu heavy chain. Later in development B cells generate V-D-J-C_{mu}-C_{delta} pre-messenger RNA, which is alternatively spliced to encode either a mu or a delta heavy chain. Mature B cells in the lymph nodes undergo switch recombination, so that the V-D-J gene is brought in proximity to one of the IGHG, IGHA, or IGHE genes and each cell expresses either the gamma, alpha, or epsilon heavy chain. Recombination of many different V segments with several J segments provides a wide range of antigen recognition. Additional diversity is attained by junctional diversity, resulting from the random additional of nucleotides by terminal deoxynucleotidyltransferase, and by somatic hypermutation, which occurs during B cell maturation in the spleen and lymph nodes. The RefSeq represents the IGH locus from C57BL/6. Several V and D segments in C57BL/6 are known to be incapable of encoding a protein and are considered pseudogenes. [provided by RefSeq, Jul 2008]