

Product datasheet for **MG207785**

Igh (BC010324) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Igh (BC010324) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Igh
Synonyms:	A1893585
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207785 representing BC010324
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAACTTTGGGCTCAGATTGATTTTCCTTGCTCTTAAAAGGTGCCAGTGTGAAGTGCACCTGG
 TGGAGTCTGGGGAGGCTTAGTGAAGCCTGGAGGGTCCCTGAAACTCTCCTGTGTAGTTTCTGGATTCTC
 TTTCACTAGCTATGACATGTCTTGGGTTTCGCCAGACTCCGGAGAGGAGGCTGGAGTGGGTGCGAGCCATT
 ACTAGTGGTGGTAACACCTACTATCCAGACAATGTGAAGGGTCGATTACCCGTCTCCAGAGACAATGCCA
 AGTACACTCTGTACCTCAAATGAGCAGTCTGAAGTCTGAGGACACAGCCATGTATTACTGTGAAGACC
 CGAAATCCCCATTTATTACTACAGTGGTAGCTACTTTGACTCCTGGGGCCAAGGCACCACATCACAGTC
 TCCTCAGAGTCTGCGAGAAATCCCACCATCTACCCACTGACACTCCCACGAGCTGTCAAGTGACCCAG
 TGATAATCGGCTGCCTGATTCACGATTACTTCCCTTCCGGCAGATGAATGTGACCTGGGAAAGAGTGG
 GAAGGATATAACCACCGTAACTTCCCACCTGCCCTGGCCTCTGGGGAGGGTACACCATGAGCAGCCAG
 TTGACCCTGCCAGCTGTGAGTGCAGAGGAGAATCCGTGAAATGTTCCGTGCAACATGACTCTAACG
 CCGTCCAAGAATTGGATGTGAAGTGCTCTGGTCTCCTCCTCCTTGTCTCCTTGTCTCCTTCTGCCA
 TCCCAGCTGTCACTGCAGCGGCCAGCTTTGAGGACCTGCTCCTGGGTTCAGATGCCAGCCTCACATGT
 ACTCTGAATGGCCTGAGAAATCTGAGGGAGCTGTCTTCACTGGGAGCCCTCCACTGGGAAGGATGCAG
 TGCAGAAGAAAGCTGTGCAGAATTCCTGCGGCTGCTACAGTGTGTCCAGCGTCTGCCTGGCTGTGCTGA
 GCGCTGGAACAGTGGCGCATCATTCAAGTGCACAGTTACCCATCTGAGTCTGACACCTTAACTGGCACA
 ATTGCCAAAATCACAGTGAACACCTTCCCACCCAGGTCCACCTGCTACCGCCCGCTCGGAGGAGCTGG
 CCCTGAATGAGCTCGTGTCCCTGACATGCCTGGTGGGAGCTTTCAACCCTAAAGAAGTGTGGTGGGATG
 GCTGCATGGAAATGAGGAGCTGTCCCAGAAAGCTACCTAGTGTGGAGCCCTAAAGGAGCCAGCGGAG
 GGAGCCACCACCTACCTGGTGAAGCGTGTGCGTGTATCAGCTGAAACCTGAAAACAGGGTGACCACT
 ACTCCTGCATGGTGGGCCACGAGGCTTGGCCATGAACCTCACCCAGAAGACCATCGACCGTCTGTGGG
 TAAACCCACCAATGTCAGCGTGTCTGTGATCATGTGAGGGAGATGGCATCTGCTAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG207785 representing BC010324
 Red=Cloning site Green=Tags(s)

MNFGRLRIFLVLALKGVQCEVHLVESGGGLVKPGGSLKLSVVSFGFSFTSYDMSWVRQTPERRLEWVAAI
 TSGGNTYYPDNVKGFRFTVSRDNAKYTLYLQMSLLKSEDTAMYCYVRPEIPIIYYYSYSGYFDSWGQTTITV
 SSESARNPTIYPLTLPRALSSDPVIGCLIHDYFPGTMMNVTWKGSGKDITTVNFPPALASGGGYTMSSQ
 LTLPAVECEGESVKCSVQHDSNAVQELDVKCSGPPPPCPPPSCHPSLSLQRPALDLLLLGSDASLTC
 TLNGLRNPEGAVFTWEPSTGKDAVQKAVQNSCGYSVSSVLPGCAERWNSGASFKCTVTHPESDTLTGT
 IAKITVNTFPPQVHLLPPPSEELALNELVSLTCLVRAFNPKEVLVRLHGNEELSPESYLVFEPLKEPGE
 GATTYLVTSVLRVSAETWKQGDQYSCMVGHEALPMNFTQKIDRLSGKPTNVSVSVMSEGDIGIC

TRTRPLE – GFP Tag – V

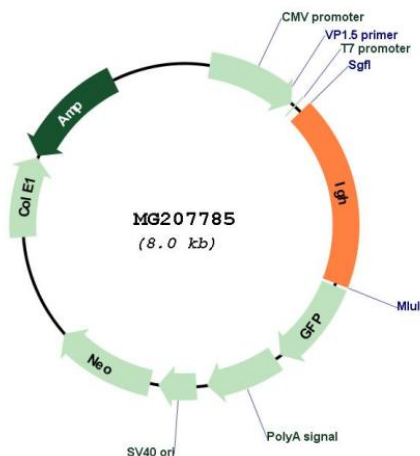
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC010324

ORF Size: 1458 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: [BC010324.1](#)

RefSeq Size: 1673 bp

RefSeq ORF: 1460 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-Cmu-Cdelta 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]