

## Product datasheet for **MR207722**

### Igh (BC011181) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Igh (BC011181) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Igh
Synonyms:	A1893585
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR207722 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCTGTCTGGCGCTACTCCTCTGCCTGGTGACTTTCCCAAGCTGTGCCCTGTCCAGGTGCAGCTGA  
 AGGAGTCAGGACCTGACCTGGTGGCGCCCTCACAGAGCCTGTCCATCACATGCACCTGTCTCTGGGTTTCGC  
 ATTAACCAGCTATGCTATAAGCTGGGTTTCGCCAGCCACCAGGAAAAGGTTCTGGAGTGGCTTGGAGTAATT  
 TGGACTGGTGGAGTCACAAATTATAAATTCAGCTCTCAAATCCAGACTGAGCATCAGCAAAGACAACCTCCA  
 AGAGTCAAGTTTTCTTAAAAATGAACAGCTGCAAACTAATGACACAGCCAGGTAATACTGTGCCAGAGA  
 TAGTAACACGAGGGAGCTATGGACTACTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGAGCCTGCA  
 AGAGAGCCACCATCTACCCACTGACATCCCACAAGCTCTGTCAAGTACCCAGTGATAATCGGCTGCC  
 TGATTCATGATTACTTCCCTTCCGGCAGATGAATGTGACCTGGGAAAGAGTGGGAAGGATATAACCAC  
 CGTAAACTTCCCACCTGCCCTGGCTCTGGGGACGGTACACCATGAGCAGCCAGTTGACCTGCCAGCT  
 GTCGAGTGCCCAAGGAGAATCCGTGAAATGTTCCGTGCAACATGACTCTAACCCTGCCAAGAATTGA  
 ACGTGAATTGCCCTGGTATCTGTTCTCCTCCTACTACTCCTCCTCCACCTTCTGCCAGCCAGCCTGTC  
 ACTGCAGCGGCCAGCTCTTGAGGACCTGCTCCTGGGTTTCAGATGCCAGCATCACATGTAATACTGAAATGGC  
 CTGAGAGATCCTGAGGGAGCTGTCTTACCTGGGAGCCCTCCACTGGGAAGGATGCAGTGCAGAAGAAAAG  
 CTGTGCAGAAATCCTGCGGCTGTACAGTGTGTCCAGCGTCTGCCTGGCTGTGTGAGCGCTGGAACAG  
 TGGCGCATCATTCAAGTGCACAGTTACCCATCCTGAGTCTGACACCTTAACTGGCACAATTGCCAAAAGTC  
 ACAGTGAACACCTTCCCACCCAGGTCCACCTGCTACCCGCCCGCTCGGAGGAGCTGGCCCTGAATGAGC  
 TCGTGTCCCTGACATGCCTGGTGGAGCTTTCAACCCTAAAGAAGTGTGGTGGCATGCATGCATGGAAA  
 TGAGGAGCTGTCCCAGAAAGCTACCTAGTGTGGAGCCCTAAAGGAGCCAGGCGAGGGAGCCACCACC  
 TACCTGGTGACAAGCGTGTTCGTGTATCAGCTGAAATCTGAAAACAGGGTGACCACTACTCCTGCATGG  
 TGGGCCACGAGGCCTTGCCCATGAACTTACCCAGAAGACCATCGACCGTCTGTGGGTAACCCACCAA  
 TGTGAGCGTGTGTGATCATGTCAGAGGGAGATGGCATCTGCTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR207722 protein sequence  
 Red=Cloning site Green=Tags(s)

MAVLALLLCLVTFPSCALSQVQLKESGPDLVAPSQLSITCTVSGFALTSYAIISWVRQPPGKLEWLGV  
 WTGGVTNYSALKSRLSISKDNSKSQVFLKMNSLQTNDAARYYCARDSDNYEGAMDYWGQGTSVTVSSEPA  
 REPTIYPLTFPQALSSDPVIGCLIHDFPSGTMNVTWKGSGKDIITVNFPPALASGGRYTMSSQLTLPA  
 VECPEGESVKCSVQHDSNPVQELNVNCPGICSPPTTPPPSCQPSLSLQRPALDLLLLGSDASITCLNG  
 LRDPEGAVFTWEPSTGKDAVQKKAVQNSCGCYSVSSVLPGCAERWNSGASFKCTVTHPESDLTGTIAKV  
 TVNTFPPQVHLLPPPSEELALNELVSLTCLVRAFNPKEVLRWLHGNEELSPESYLVFEPLKEPEGGATT  
 YLVTSVLRVSAEIKWQGDQYSCMVGHEALPMNFTQKTIDRLSGKPTNVSVSVIMSEGDGICY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** BC011181

**ORF Size:** 1446 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:** [BC011181](#), [AAH11181](#)

**RefSeq Size:** 1534 bp

**RefSeq ORF:** 1448 bp

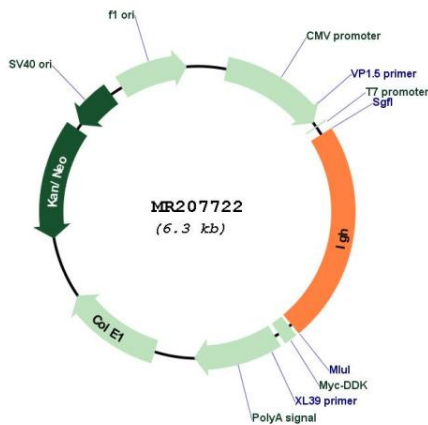
**Locus ID:** 111507

**Cytogenetics:** 12 F1-F2|12

**MW:** 51.9 kDa

**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]

**Product images:**



Circular map for MR207722