

## Product datasheet for **RC203811**

### HLA DMB (HLA-DMB) (NM\_002118) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLA DMB (HLA-DMB) (NM_002118) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLA DMB
Synonyms:	D6S221E; RING7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203811 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGATCACATTCCTGCCGCTGCTGCTGGGGCTCAGCCTGGGCTGCACAGGAGCAGGTGGCTTCGTGGCCC  
ATGTGGAAAGCACCTGTCTGTTGGATGATGCTGGGACTCCAAAGGATTTACATACTGCATCTCCTTCAA  
CAAGGATCTGCTGACCTGCTGGGATCCAGAGGAGAATAAGATGGCCCTTGCGAATTTGGGGTGTGAAT  
AGCTTGGCGAATGTCCTCTCACAGCACCTCAACCAAAAAGACACCCTGATGCAGCGCTTGCGCAATGGGC  
TTCAGAATTGTGCCACACACACCAGCCCTTCTGGGGATCACTGACCAACAGGACACGGCCACCATCTGT  
GCAAGTAGCCAAAACCACTCCTTTTAACACGAGGGAGCCTGTGATGCTGGCCTGCTATGTGTGGGGCTTC  
TATCCAGCAGAAGTGACTATCACGTGGAGGAAGAACGGGAAGCTTGTCATGCCTCACAGCAGTGCCGACA  
AGACTGCCAGCCCAATGGAGACTGGACATACCAGACCCTCTCCCATTTAGCCTTAACCCCTCTTACGG  
GGACACTTACACCTGTGTGGTAGAGCACATTGGGGCTCCTGAGCCCATCCTTCGGGACTGGACACCTGGG  
CTGTCCCCATGCAGACCCTGAAGGTTTCTGTGTCTGCAGTGACTCTGGGCTGGGCCTCATCATTTCT  
CTTTGGTGTGATCAGCTGGCGGAGAGCTGGCCACTCTAGTTACACTCCTTCTCTGGGTCCAATTATTC  
AGAAGGATGGCACATTTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC203811 protein sequence  
Red=Cloning site Green=Tags(s)

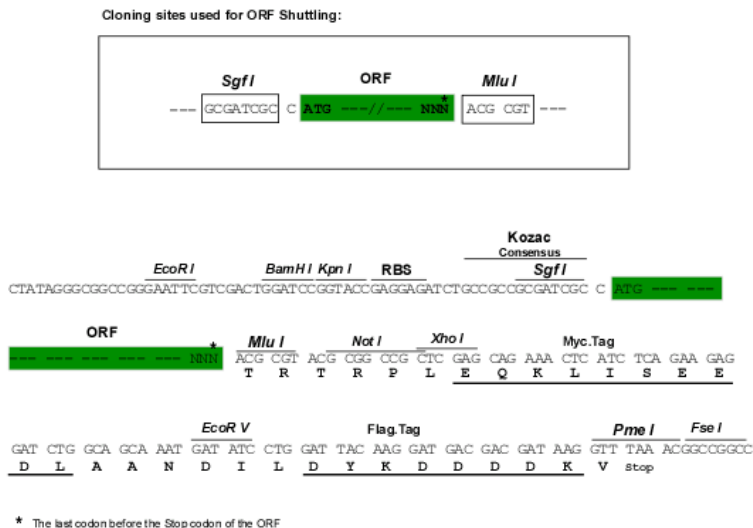
MITFLPLLLGLSLGCTGAGGFVAHVESTCLDDAGTPKDFTYCISFNKDLLTCWDPEENKMAPCEFGVLN  
 SLANVLSQHLNQKDTLMQRLRNLQNCATHTQPFWGSLTNRTRPPSVQVAKTTPFNTREPVMLACYVWGF  
 YPAEVTITWRKNGKLVMPHSSAHKTAQPNGDWTYQTLSHLALTPSYGDTYTCVVEHIGAPEPILRDWT  
 LSPMQTLKVSVAVTLGLGLIIIFSLGVIWRRAGHSSYTPLPGSNYSEGWHIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6324\\_b03.zip](https://cdn.origene.com/chromatograms/mk6324_b03.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_002118

ORF Size: 789 bp

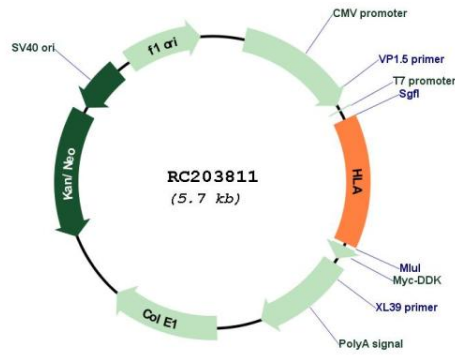
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

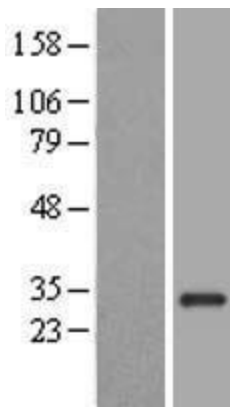
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_002118.3</a> , <a href="#">NP_002109.1</a>
<b>RefSeq Size:</b>	1412 bp
<b>RefSeq ORF:</b>	792 bp
<b>Locus ID:</b>	3109
<b>UniProt ID:</b>	<a href="#">P28068</a>
<b>Cytogenetics:</b>	6p21.32
<b>Domains:</b>	MHC_II_beta, ig, Igc1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Allograft rejection, Antigen processing and presentation, Asthma, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Graft-versus-host disease, Systemic lupus erythematosus, Type I diabetes mellitus, Viral myocarditis
<b>MW:</b>	28.9 kDa
<b>Gene Summary:</b>	HLA-DMB belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DMA) and a beta (DMB) chain, both anchored in the membrane. It is located in intracellular vesicles. DM plays a central role in the peptide loading of MHC class II molecules by helping to release the CLIP (class II-associated invariant chain peptide) molecule from the peptide binding site. Class II molecules are expressed in antigen presenting cells (APC: B lymphocytes, dendritic cells, macrophages). The beta chain is approximately 26-28 kDa and its gene contains 6 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, exon 4 encodes the transmembrane domain and exon 5 encodes the cytoplasmic tail. [provided by RefSeq, Jul 2008]

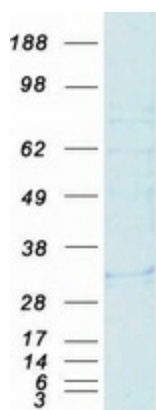
Product images:



Circular map for RC203811



Western blot validation of overexpression lysate (Cat# [LY419522]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203811 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HLA-DMB protein (Cat# [TP303811]). The protein was produced from HEK293T cells transfected with HLA-DMB cDNA clone (Cat# RC203811) using MegaTran 2.0 (Cat# [TT210002]).