

## Product datasheet for RC203106

### HLA DM (HLA-DMA) (NM\_006120) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLA DM (HLA-DMA) (NM_006120) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLA DM
Synonyms:	D6S222E; DMA; HLADM; RING6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203106 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGTCATGAACAGAACCAAGGAGCTGCGCTGCTACAGATGTTACCACTTCTGTGGCTGCTACCCCACT  
CCTGGGCCGTCCCTGAAGCTCCTACTCCAATGTGGCCAGATGACCTGCAAAACCACACATTCCTGCACAC  
AGTGTACTGCCAGGATGGGAGTCCCAGTGTGGACTCTCTGAGGCCTACGACGAGGACCAGCTTTTCTTC  
TTCGACTTTTCCAGAACACTCGGGTGCCTCGCCTGCCGAATTTGCTGACTGGGCTCAGGAACAGGGAG  
ATGCTCCTGCCATTTTATTTGACAAAGAGTTCTGCGAGTGGATGATCCAGCAAATAGGGCCAAACTTGA  
TGGGAAAATCCCGGTGTCCAGAGGGTTTCTATCGCTGAAGTGTTCACGCTGAAGCCCCTGGAGTTTGGC  
AAGCCCAACACTTTGGTCTGTTTTGTCAGTAATCTCTCCACCCATGCTGACAGTGAAGTGGCAGCATC  
ATTCCTCCCTGTGGAAGGATTTGGGCCTACTTTTGTCTCAGCTGTGATGGACTCAGCTCCAGGCCTT  
TTCTTACTTAAACTTCACACCAGAACCTTCTGACATTTTCTCCTGCATTGTGACTCACGAAATTGACCGC  
TACACAGCAATTGCCTATTGGGTACCCCGAACGCACTGCCCTCAGATCTGCTGGAGAATGTGCTGTGTG  
CGGTGGCCTTTGGCTGGGTGTGCTGGGCATCATCGTGGGCATTGTTCTCATCATCTACTCCGGAAGCC  
TTGCTCAGGTGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203106 protein sequence  
Red=Cloning site Green=Tags(s)

MGHEQNQGALLQMLPLLWLLPHSWAVPEAPTPMWPDDLQNHFTLHTVYCQDGSPSVGLSEAYDEDQLFF  
 FDFSQNTRVPRLPEFADWAQEQGDAPAILFDKEFCEWMIQQIGPKLDGKIPVSRGFPIAEVFTLKPLEFG  
 KPNTLVCFVSNLFPPLTVNQHHVSPVEGFGPTFVSAVDGLSFQAFSYLNFTPEPSDIFSCIVTHEIDR  
 YTAIAYWVPRNALPSDLLLENVLCGVAFGLGVLGIIVGIVLIIYFRKPCSGD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6435\\_a04.zip](https://cdn.origene.com/chromatograms/mk6435_a04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_006120

**ORF Size:** 783 bp

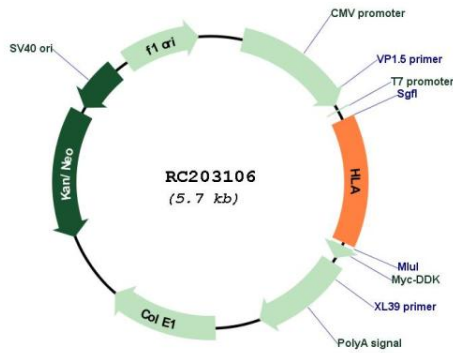
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone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

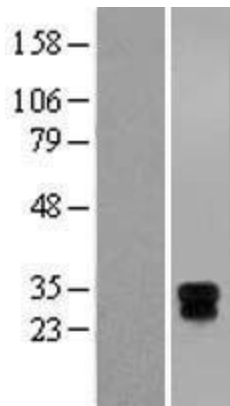
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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_006120.4</a>
<b>RefSeq Size:</b>	1122 bp
<b>RefSeq ORF:</b>	786 bp
<b>Locus ID:</b>	3108
<b>Cytogenetics:</b>	6p21.32
<b>Domains:</b>	MHC_II_alpha, 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>	29.2 kDa
<b>Gene Summary:</b>	HLA-DMA belongs to the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DMA) and a beta chain (DMB), 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 molecule from the peptide binding site. Class II molecules are expressed in antigen presenting cells (APC: B lymphocytes, dendritic cells, macrophages). The alpha chain is approximately 33-35 kDa and its gene contains 5 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, exon 4 encodes the transmembrane domain and the cytoplasmic tail. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC203106



Western blot validation of overexpression lysate (Cat# [LY416850]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203106 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).