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Product datasheet for RC204966

HLA-DPB1 (NM_002121) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA-DPB1 (NM_002121) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLA-DPB1
Synonyms:	DPB1; HLA-DP; HLA-DP1B; HLA-DPB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204966 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTTCTGCAGGTTTCTGCGGCCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACAT
CTGTGGTCCAGGGCAGGGCCACTCCAGAGAATTACGTGCACCAGTTACGGCAGGAATGCTACGCGTTTAA
TGGGACACAGCGCTTCCTGGAGAGATACATCTACAACCGGGAGGAGTTCGTGCGCTTCGACAGCGACGTG
GGGGAGTTCCGGGCGGTGACGGAGCTGGGGCGGCCTGATGAGGACTACTGGAACAGCCAGAAGGACATCC
TGGAGGAGGAGCGGGCAGTGCCGGACAGGATGTGCAGACACAACTACGAGCTGGACGAGGCCGTGACCCT
GCAGCGCCGAGTCCAGCCTAGGGTGAATGTTTCCCCCTCCAAGAAGGGGCCCTTGCAGCACCACAACCTG
CTTGTCTGCCACGTGACGGATTTCTACCCAGGCAGCATTCAAGTCCGATGGTTCCTGAATGGACAGGAGG
AAACAGCTGGGGTCGTGTCCACCAACCTGATCCGTAATGGAGACTGGACCTTCCAGATCCTGGTGATGCT
GGAAATGACCCCCCAGCAGGGAGATGTCTACACCTGCCAAGTGGAGCACACCAGCCTGGATAGTCCTGTC
ACCGTGGAGTGGAAGGCACAGTCTGATTCTGCCCGGAGTAAGACATTGACGGGAGCTGGGGGCTTCGTGC
TGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAGGATCTGC
A

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC204966 protein sequence
Red=Cloning site Green=Tags(s)

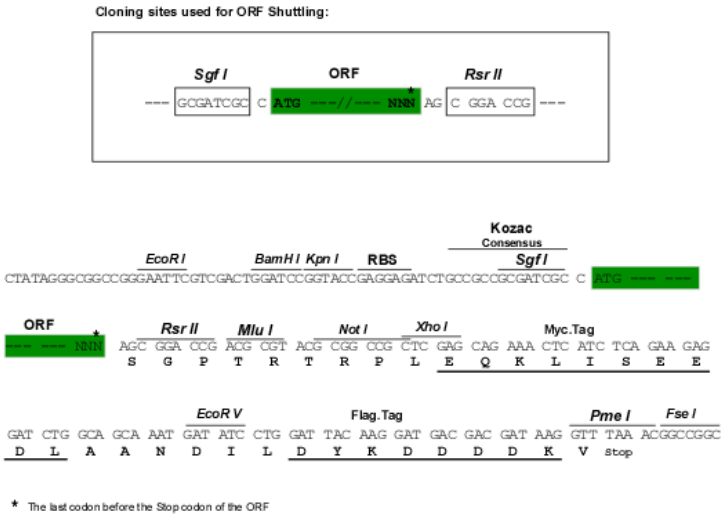
MVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYVHQLRQECYAFNGTQRFLERYIYNREEFVRFDSDV
GEFRAVTELGRPDEDYWNSQKDILEEERAVPDRMCRHNYELDEAVTLQRRVQPRVNVSPSKKGPLQHHNL
LVCHVTDFYPGSIQVRWFLNGQEETAGVVSTNLIRNGDWTFQILVMLEMTPQQGDVYTCQVEHTSLDSPV
TVEWKAQSDSARSKTLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6189_c05.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_002121

ORF Size: 771 bp

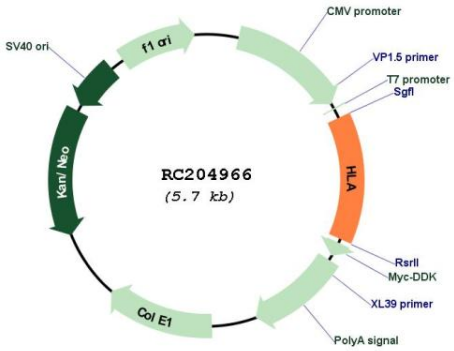
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

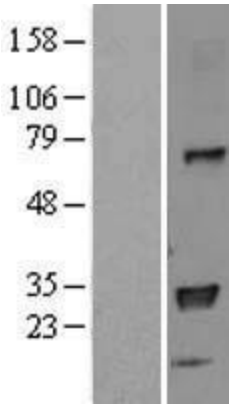
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq Size:	4055 bp
RefSeq ORF:	777 bp
Locus ID:	3115
UniProt ID:	P04440
Cytogenetics:	6p21.32
Domains:	MHC_II_beta, ig, IGc1
Protein Families:	Transmembrane
Protein Pathways:	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
MW:	29.2 kDa
Gene Summary:	HLA-DPB belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DPA) and a beta chain (DPB), both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. 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. Within the DP molecule both the alpha chain and the beta chain contain the polymorphisms specifying the peptide binding specificities, resulting in up to 4 different molecules. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC204966



Western blot validation of overexpression lysate (Cat# [LY400773]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204966 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).