

Product datasheet for RC202892

HLA DOB (HLA-DOB) (NM_002120) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA DOB (HLA-DOB) (NM_002120) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLA DOB
Synonyms:	DOB; HLA_DOB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202892 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGGTTCTGGGTGGTCCCCTGGGTGGTGGCTCTGCTAGTGAATCTGACCCGACTGGATTCCATGACTCAAGGCACAGACTCTCCAGAAGATTTGTGATTCAGGCAAAGGCTGACTGTTACTTCACCAACGGGACAGAAAAGGTGCAGTTTGTGGTCAGATTCATCTTAACTTGGAGGAGTATGTACGTTTCGACAGTGATGTGGGATGTTTGTGGCATTGACCAAGCTGGGCAGCCAGATGCTGAGCAGTGAACAGCCGGCTGGATCTCTGGAGAGGAGCAGACAGGCCGTGGATGGGTCTGTAGACACAACACAGGCTGGGCGCACCTTCACTGTGGGAGAAAAGTGAACCAAGAGGTGACAGTGTACCCAGAGAGGACCCCACTCCTGCACCAGCATAAATCTGCTGCACTGCTCTGTGACAGGCTTCTATCCAGGGGATATCAAGATCAAGTGGTTCCTGAATGGGCAGGAGGAGAGAGCTGGGGTCATGTCCACTGGCCCTATCAGGAATGGAGACTGGACCTTTCAGACTGTGGTGTGCTAGAAATGACTCCTGAACTTGGACATGTCTACACCTGCCTGTGCGATCACTCCAGCCTGCTGAGCCCTGTTCTGTGGAGTGGAGAGCTCAGTCTGAATATTCTGGAGAAAGATGCTGAGTGGCATTGCAGCCTTCTACTTGGGCTAATCTTCTTCTGGTGGGAATCGTCATCCAGCTAAGGGCTCAGAAAGGATATGTGAGGACCGAGATGCTGGTAATGAGGTCTCAAGAGCTGTTCTGCTCCCTCAGTCATGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202892 protein sequence
Red=Cloning site Green=Tags(s)

MGSGWVPWVVALLVNLTRLDSSMTQGTDSPEDFVIQAKADCYFTNGTEKVQFVVRIFINLEEVRFDS
 GMFVALTKLGQPDAEQWNSRLDLLERSRQAVDGVCRHNYRLGAPFTVGRKVQPEVTVYPERTPL
 LHQHNLLHCSVTGFYPGDIKIKWFLNGQEERAGVMSTGPIRNGDWFQTVMLEMTPELGHVYTCL
 VDHSSLLSPV SVEWRAQSEYSWRKMLSGIAAFLGLIFLLVGI VIQLRAQKGYVRTQMSGNEVSRAVLLPQSC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6194_b07.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_002120

ORF Size: 819 bp

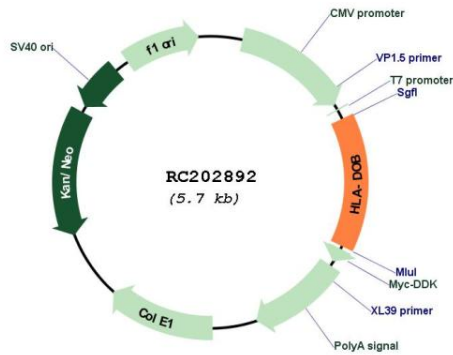
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

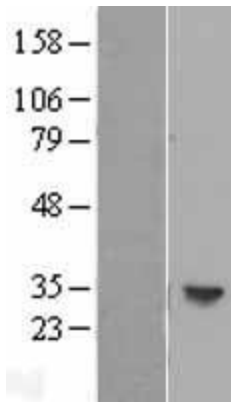
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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:	NM_002120.4
RefSeq Size:	1388 bp
RefSeq ORF:	822 bp
Locus ID:	3112
UniProt ID:	P13765
Cytogenetics:	6p21.32
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:	30.8 kDa
Gene Summary:	HLA-DOB belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DOA) and a beta chain (DOB), both anchored in the membrane. It is located in intracellular vesicles. DO suppresses peptide loading of MHC class II molecules by inhibiting HLA-DM. 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]

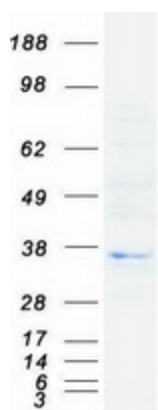
Product images:



Circular map for RC202892



Western blot validation of overexpression lysate (Cat# [LY400772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202892 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HLA-DOB protein (Cat# [TP302892]). The protein was produced from HEK293T cells transfected with HLA-DOB cDNA clone (Cat# RC202892) using MegaTran 2.0 (Cat# [TT210002]).