

Product datasheet for **RG222843**

HLA DP (HLA-DPA1) (NM_033554) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA DP (HLA-DPA1) (NM_033554) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HLA DP
Synonyms:	DP(W3); DP(W4); DPA1; HLA-DP1A; HLA-DPA; HLA-DPB1; HLADP; HLASB; PLT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222843 representing NM_033554 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGCCCTGAAGACAGAATGTTCCATATCAGAGCTGTGATCTTGAGAGCCCTCTCCTTGGCTTTCCTGC
TGAGTCTCCGAGGAGCTGGGGCCATCAAGGCGGACCATGTGTCAACTTATGCCGCTTTGTACAGACGCA
TAGACCAACAGGGGAGTTTATGTTTGAATTTGATGAAGATGAGATGTTCTATGTGGATCTGGACAAGAAG
GAGACCGTCTGGCATCTGGAGGAGTTTGCCAAGCCTTTTCTTTGAGGCTCAGGGCGGGCTGGCTAACA
TTGCTATATTGAACAACAACCTTGAATACCTTGATCCAGCGTTCCAACCACACTCAGGCCACCAACGATCC
CCCTGAGGTGACCGTGTTCCTCAAGGAGCCTGTGGAGCTGGGCCAGCCCAACACCCTCATCTGCCACATT
GACAAGTTCTTCCACCAGTGCTCAACGTACGTTGGCTGTGCAACGGGGAGCTGGTCACTGAGGGTGTCG
CTGAGAGCCTCTTCTGCCCAGAACAGATTACAGCTTCCACAAGTTCCATTACCTGACCTTTGTGCCCTC
AGCAGAGGACTTCTATGACTGCAGGGTGGAGCACTGGGGCTTGGACCAGCCGCTCCTCAAGCACTGGGAG
GCCAAGAGCCAATCCAGATGCCTGAGACAACGGAGACTGTGCTCTGTGCCCTGGGCTGGTGTGGGCC
TAGTCGGCATCATCGTGGCACCGTCTCATATAAAGTCTGCGTCTGGCCATGACCCCGGGCCCA
GGGACCCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG222843 representing NM_033554
 Red=Cloning site Green=Tags(s)

MRPEDRMFHIRAVILRALSLAFLLSLRGAGAIKADHVSTYAAFVQTHRPTGEFMFEFDEDEMFYVDLDDK
 ETVWHLEEFQAFSFEAQGLANIAILNNLNLIQRSNHTQATNDPPEVTVPKPEVELGQPNTLI
 DKFFPPVNLNVTWLCNGELVTEGVAESLFLPRTDYSFHKFHLYLTFVPSAEDFYDCRVEHWGLDQPLLKHW
 AQEPIQMPETTETVLCALGLVLGLVGIIVGTVLIIKSLRSGHDPRAQGT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_033554

ORF Size: 780 bp

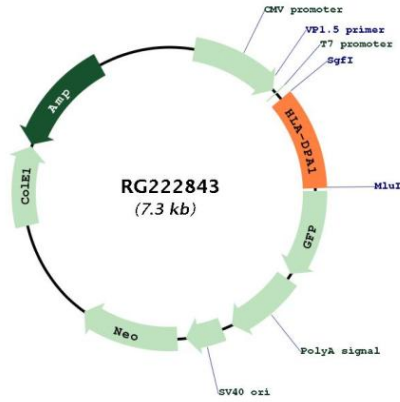
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_033554.3
RefSeq Size:	1157 bp
RefSeq ORF:	783 bp
Locus ID:	3113
UniProt ID:	P20036
Cytogenetics:	6p21.32
Domains:	MHC_II_alpha, 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
Gene Summary:	HLA-DPA1 belongs to the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DPA) and a beta (DPB) chain, 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 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. 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 RG222843