

Product datasheet for RC223979

HLA-DQA2 (NM 020056) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: HLA-DQA2 (NM_020056) Human Tagged ORF Clone

Tag: Myc-DDK
Symbol: HLA-DQA2

Synonyms: DC-alpha; DX-ALPHA; HLA-DCA; HLA-DXA; HLADQA2

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

ORF Nucleotide >RC223979 representing NM_020056

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGATCCTAAACAAAGCTCTGCTGCTGGGGGCCCTCGCCCTGACTGCCGTGATGAGCCCCTGTGGAGGTG
AAGACATTGTGGCTGACCATGTTGCCTCCTATGGTGTGAACTTCTACCAGTCTCACGGTCCCTCTGGCCA
GTACACCCATGAATTTGATGGAGACGAGGAGTTCTACGTGGACCCTGGAGACGAAAGAGACTGTCTGGCAG
TTGCCTATGTTTAGCAAATTTATAAGTTTTGACCCGCAGAGTGCACTGAGAAATATGGCTGTGGGAAAAC
ACACCTTGGAATTCATGATGAGACAGTCCAACTCTACCGCTGCCACCAATGAGGTTCCTGAGGTCACAGT
GTTTTCCAAGTTTCCTGTGACGCTGGGTCAGCCCAACACCCTCATCTGTCTTGTGGACAACACTCTTCCT
CCTGTGGTCAACATCACCTGGCTGAGCAATGGGCACTCAGTCACAGAAGGTGTTTCTGAGACCAGCTTCC
TCTCCAAGAGTGATCATTCCTTCTTCAAGATCAGTTACCTCACCTTCCTCCCTTCTGCTGATGAGATTTA
TGACTGCAAGGTGGAGCACTGGGGCCTGGACGAGCCTCTTCTGAAACACTGGGAGCCTGAGATTCCAGCC
CCTATGTCAGAGCTCACAGAGACTTTGGTCTGCGCCCTGGGGTTGTCTGTGGGCCTCATGGGCATTGTGG
TGGGCACTGTCTTCATCATCCAAGGCCTGCGTTCAGTTGCTTCCAGACACCCAAGGGCTCTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



OriGene Technologies, Inc. 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com



Protein Sequence: >RC223979 representing NM_020056

Red=Cloning site Green=Tags(s)

MILNKALLLGALALTAVMSPCGGEDIVADHVASYGVNFYQSHGPSGQYTHEFDGDEEFYVDLETKETVWQ LPMFSKFISFDPQSALRNMAVGKHTLEFMMRQSNSTAATNEVPEVTVFSKFPVTLGQPNTLICLVDNIFP PVVNITWLSNGHSVTEGVSETSFLSKSDHSFFKISYLTFLPSADEIYDCKVEHWGLDEPLLKHWEPEIPA PMSELTETLVCALGLSVGLMGIVVGTVFIIQGLRSVGASRHQGLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6503 c02.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



CTATAGGGCGGCCGC	EcoRI GAATTCGTC		HI Kpn I	RBS	- ATCTGC		ozac isensi Sg GCGA	ıs f l	c 🖪	TG -		-
ORF	NNN	Miu i ACG CGI T R		ot/ G CCG C P	Xhol TC GAG L E	CAG Q	AAA K	-	.Tag ATC	TCA S	GAA E	GAG E
GAT CTG GCA GC		ATC CTG	GAT TAC	Flag.Tag AAG G	AT GAC	GAC D	GAT D	AAG K	GTT	TAA stop	ACGG	se I caggac

^{*} The last codon before the Stop codon of the ORF

ACCN: NM_020056

ORF Size: 765 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.

RefSeq: <u>NM 020056.2</u>, <u>NP 064440.1</u>

 RefSeq Size:
 1709 bp

 RefSeq ORF:
 768 bp

 Locus ID:
 3118

 UniProt ID:
 P01906

 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

MW: 27.9 kDa

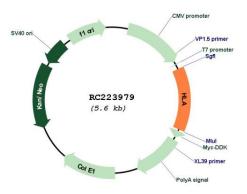
Gene Summary: This gene belongs to the HLA class II alpha chain family. The encoded protein forms a

heterodimer with a class II beta chain. It is located in intracellular vesicles and 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 (B lymphocytes, dendritic cells, macrophages) and are used to present antigenic peptides on the

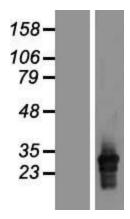
cell surface to be recognized by CD4 T-cells. [provided by RefSeq, Jun 2010]



Product images:

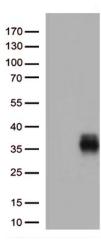


Circular map for RC223979



Western blot validation of overexpression lysate (Cat# [LY412649]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223979 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).





HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HLA-DQA2 (Cat# RC223979, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HLA-DQA2 (Cat# [TA812936])(1:500).