

Product datasheet for RC205939

HLAE (HLA-E) (NM_005516) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLAE (HLA-E) (NM_005516) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLAE
Synonyms:	HLA-6.2; QA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205939 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTAGATGGAACCCTCCTTTTACTCCTCTCGGAGGCCCTGGCCCTTACCCAGACCTGGGCGGGCTCCC
ACTCCTTGAAGTATTTCCACACTTCCGTGTCCCGGCCCGCCGCGGGGAGCCCGCTTATCTCTGTGGG
CTACGTGGACGACACCCAGTTCGTGCGCTTCGACAACGACGCCGCGAGTCCGAGGATGGTCCCGGGCG
CCGTGGATGGAGCAGGAGGGGTGAGGATTTGGACCGGGAGACACGGAGCGCCAGGGACACCGCACAGA
TTTTCCGAGTGAACCTGCGGACGCTGCGCGCTACTACAATCAGAGCGAGCCGGTCTCACACCCTGCA
GTGGATGCATGGCTGCGAGCTGGGGCCGACGGGCGCTTCTCCGCGGGTATGAACAGTTCGCCTACGAC
GGCAAGGATTATCTCACCTGAATGAGGACCTGCGCTCCTGGACCGCGGTGGACACGGCGGCTCAGATCT
CCGAGCAAAAGTCAAATGATGCCTCTGAGGCGGAGCACCAGAGAGCCTACCTGGAAGACACATGCCTGGA
GTGGCTCCACAAATACCTGGAGAAGGGGAGGAGACGCTGCTTACCTGGAGCCCCAAAGACACACGTG
ACTCACACCCCATCTCTGACCATGAGGCCACCCTGAGGTGCTGGGCCCTGGGCTTCTACCTGCGGAGA
TCACACTGACCTGGCAGCAGGATGGGGAGGGCCATACCCAGGACACGGAGCTCGTGAGACCAGGCTGC
AGGGATGGAACCTTCCAGAAGTGGCAGCTGTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACGTGC
CATGTGCAGCATGAGGGCTACCCGAGCCCGTACCCTGAGATGGAAGCCGGCTTCCAGCCCACCATCC
CCATCGTGGGCATCATTGCTGGCCTGGTTCCTTGGATCTGTGGTCTCTGGAGCTGTGGTTGCTGCTGT
GATATGGAGGAAGAAGAGCTCAGGTGAAAAGGAGGGAGCTACTTAAGGCTGAGTGGAGCGACAGTGCC
CAGGGGTCTGAGTCTCACAGCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205939 protein sequence
Red=Cloning site Green=Tags(s)

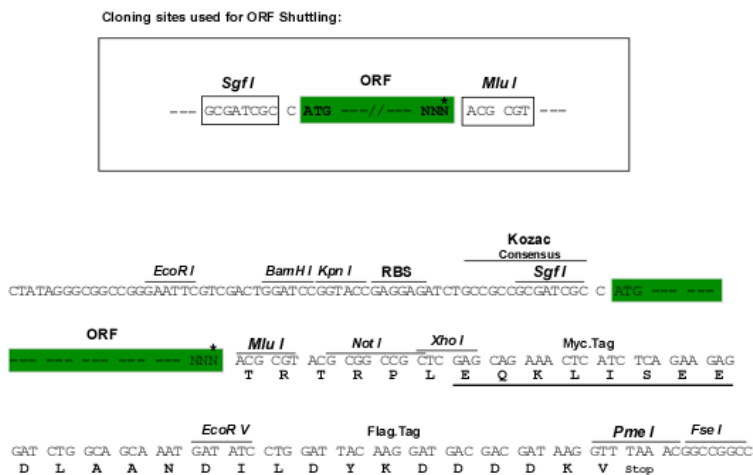
MVDGTL L L L L L S E A L A L T Q T W A G S H S L K Y F H T S V S R P G R G E P R F I S V G Y V D D T Q F V R F D N D A A S P R M V P R A P W M E Q E G S E Y W D R E T R S A R D T A Q I F R V N L R T L R G Y Y N Q S E A G S H T L Q W M H G C E L G P D G R F L R G Y E Q F A Y D G K D Y L T L N E D L R S W T A V D T A A Q I S E Q K S N D A S E A E H Q R A Y L E D T C V E W L H K Y L E K G K E T L L H L E P P K T H V T H H P I S D H E A T L R C W A L G F Y P A E I T L T W Q Q D G E G H T Q D T E L V E T R P A G D G T F Q K W A A V V P S G E E Q R Y T C H V Q H E G L P E P V T L R W K P A S Q P T I P I V G I I A G L V L L G S V V S G A V V A A V I W R K K S S G K G G S Y S K A E W S D S A Q G S E S H S L

TRTRPLEQKLISEEDLAANDILDYKDDDDKVV

Chromatograms: https://cdn.origene.com/chromatograms/mk6070_e12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_005516

ORF Size: 1074 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: [NM_005516.4](#), [NP_005507.3](#)

RefSeq Size: 2679 bp

RefSeq ORF: 1077 bp

Locus ID: 3133

UniProt ID: [P13747](#)

Cytogenetics: 6p22.1

Domains: MHC_I, ig, IGc1

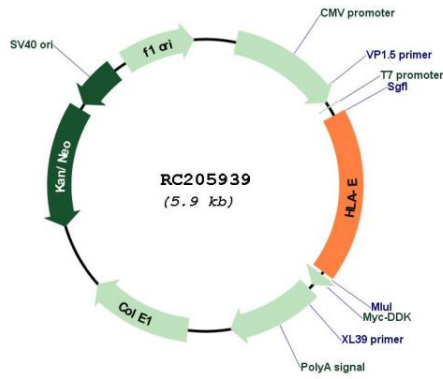
Protein Families: Transmembrane

Protein Pathways: Allograft rejection, Antigen processing and presentation, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Endocytosis, Graft-versus-host disease, Natural killer cell mediated cytotoxicity, Type I diabetes mellitus, Viral myocarditis

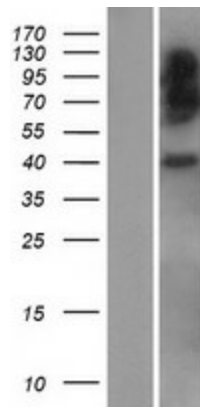
MW: 40.1 kDa

Gene Summary: HLA-E belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. HLA-E binds a restricted subset of peptides derived from the leader peptides of other class I molecules. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail. [provided by RefSeq, Jul 2008]

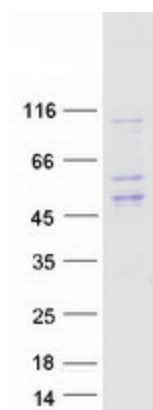
Product images:



Circular map for RC205939



Western blot validation of overexpression lysate (Cat# [LY401693]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205939 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HLA-E protein (Cat# [TP305939]). The protein was produced from HEK293T cells transfected with HLA-E cDNA clone (Cat# RC205939) using MegaTran 2.0 (Cat# [TT210002]).