

## Product datasheet for SC127254

### HLAE (HLA-E) (NM\_005516) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLAE (HLA-E) (NM_005516) Human Untagged Clone
Tag:	Tag Free
Symbol:	HLAE
Synonyms:	HLA-6.2; QA1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC127254 sequence for NM_005516 edited (data generated by NextGen Sequencing)

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ATGGTAGATGGAACCCTCCTTTTACTCCTCTCGGAGGCCCTGGCCCTTACCCAGACCTGG
GCGGGCTCCCACTCCTTGAAGTATTTCCACACTTCCGTGTCCCGGCCCGCCGCGGGGAG
CCCCGTTTCATCTCTGTGGGCTACGTGGACGACCCAGTTCGTGCGCTTCGACAACGAC
GCCGCGAGTCCGAGGATGGTGCCGCGGGCGCCGTGGATGGAGCAGGAGGGGTGAGATAT
TGGGACCCGGGAGACACGGAGCGCCAGGGACACCGCACAGATTTTCCGAGTGAATCTGCGG
ACGCTGCGCGGCTACTACAATCAGAGCGAGGCCGGGTCTCACACCCTGCAGTGGATGCAT
GGCTGCGAGTGGGGCCCGACGGGCGCTTCTCCGCGGGTATGAACAGTTCGCCTACGAC
GGCAAGGATTATCTCACCTGAATGAGGACCTGCGCTCCTGGACCGGGTGGACACGGCG
GCTCAGATCTCCGAGCAAAGTCAAATGATGCCTCTGAGGCGGAGCACCAGAGAGCCTAC
CTGGAAGACACATGCGTGGAGTGGCTCCACAAATACCTGGAGAAGGGGAAGGAGACGCTG
CTTCACCTGGAGCCCCAAAGACACACGTGACTACCACCCCATCTTGACCATGAGGCC
ACCCTGAGGTGCTGGGCCTGGGCTTCTACCCTGCGGAGATCACACTGACCTGGCAGCAG
GATGGGGAGGGCCATACCCAGGACACGGAGCTCGTGGAGACCAGGCTGCAGGGGATGGA
ACCTTCCAGAAGTGGGCAGCTGTGGTGGTGCCTTCTGGAGAGGAGCAGAGATACACGTGC
CATGTGCAGCATGAGGGGCTACCCGAGCCCGTACCCTGAGATGGAAGCCGGCTTCCCAG
CCCACCATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCT
GGAGCTGTGGTTGCTGCTGTGATATGGAGGAAGAAGAGCTCAGGTGAAAAGGAGGGAGC
TACTCTAAGGCTGAGTGGAGCGACAGTGCCAGGGGTCTGAGTCTCACAGCTTGTA

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Clone variation with respect to NM\_005516.5



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_005516 unedited  
 TCACTATAGGGCGGCCGGAATTCGGCACGAGGAGAGGCTGGGATCATGGTAGATGGAAC  
 CCTCCTTTTACTCCTCTCGGAGGCCCTGGCCCTTACCCAGACCTGGGCGGGCTCCCACTC  
 CTTGAAGTATTTCCACACTTCCGTGTCCCGGCCCGGCCGGGGAGCCCCGCTTCATCTC  
 TGTGGGCTACGTGGACGACACCCAGTTCGTGCGCTTCGACAACGACGCCGCGAGTCCGAG  
 GATGGTGCCCGGGCGCCGTGGATGGAGCAGGAGGGGTGAGAGTATTGGGACCGGGAGAC  
 ACGGAGCGCCAGGGACACCCGACAGATTTCCGAGTGAATCTGGGACCGTGCAGCGGCTA  
 CTAACAATCAGAGCGAGGCCGGTCTCACACCCTGCAGTGGATGCATGGCTGCGAGCTGGG  
 GCCCGACGGGCGCTTCTCCGCGGGTATGAACAGTTCGCCTACGACGGCAAGGATTATCT  
 CACCCTGAATGAGGACCTGCGCTCCTGGACCGCGGTGGACACGGCGGCTCAGATCTCCGA  
 GCANAAGTCANATGATGCCTCTGAGGCGGAGCACCAGAGAGCCTACCTGGAAGACACATG  
 CGTGGAGTGGGCTCACAATACCTGGAGAAGGGAAGGAGACGCTGCTTACCTGGAGCCCC  
 CAAAGACACACGTGACTACCCCCATCTCTGACATGAGGCCACCCTGAGTGTGGCCCC  
 TGGCTTACTACCTGCGAGATACTGACCTGCCACAGATGGGGAGGCCATACCAGACACG  
 AGCTCGTGAGACAGCCTGCAGGGATGGACCTTCANAGTGGCACTGGGTGGTGCCTTTGA  
 AGAACNAGATCCGTGCATTGCACATGAGGGCTCCCGAGCCTACCTGAATGGAGCGTTCCA  
 GCACATCCATGGGGATATGCTGTGTTNCTGATCGGCCTGACTGGTGTGTGGATGAGAA  
 AAC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_005516 unedited  
 CTATGGCCCGGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTAATTTTTATTTT  
 TTGAGATGGCGTTTACCCTGTCAACCAGGCTGGAGTGCAGTCGCACAATCCTGGCTCAC  
 TGCAACCTCCGCCTCCCGGGTTGACGCCATTCTCCTGCCTCCGCCTCCTGAGTAGCTGGG  
 ACTACAGGCCCGTGCCTCTGCGCCAGCTAATTTTTTTGTATTTTTTAGTAGAGACGGGGT  
 TTCACCGTGTAGCCAGGATGGTTTCGATCTCCTGACCTCGTGATCTGCCCTCCTCGGCC  
 TCCTAAGTGCTGGGATTACAGGCATGAGCTGCCGCACTCTGCCAGGTTCTATTTTTTA  
 ATAGAAAAGAGAACAGGGAAGGAACACAGGTCAGTGTGAGGAAGGGGGTTCATGGTATACA  
 CAGAGGTGGACTGTTTCTACCTCCTCACATTGTGCTAACAGGGACACAGACAGATTCA  
 GAGGCCCTTGCAAAAAGAGAAGCCAGAGTCCCCTAAGACACATAGGGGAGGCGTGAGGAA  
 ATCCTGCATCTCAGTCGCACACAAGGCAGCTGTGCATCTCAGTCGCACACAAGGCAGCTG  
 TCTCAGGCTTTACAAGCTGTGAGACTCAGACCCCTGGGCACTGTGCTCCACTCAGCCTT  
 AGAGTACCTCCCTCCTTTTCCACCTGAGCTCTTTTTTCTCCATATCACAGCAGCCACCAC  
 AGCTCCAGAGACCACAGATCCAAGGAGAACCAGCCAGCAATGATGCCACGATGGGGTAT  
 GTGGGCTGGAAACCCGCTTCCATCTCAAGTGACGGCCTCGGGTACCCCTCATGTTGAC  
 ATGCACGTGTATCTGTCTTTTTCAGAGGGCCACACAACCTGCCATTTTGGAAAGTTCA  
 TCCCTGAAGCCTGTTCCAGACTCGGGCCGGGTATGCCCTCCATCTGCTGCAGCCATGGA  
 ATCCC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_005516

**Insert Size:**

1780 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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:** [NM\\_005516.4](#), [NP\\_005507.3](#)

**RefSeq Size:** 1701 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

**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]