

Product datasheet for **RC227316**

CD8A (NM_001145873) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD8A (NM_001145873) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD8A
Synonyms:	CD8; Leu2; p32
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227316 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGGATCGCC**

ATGGCCTTACCAGTGACCGCCTTGCTCCTGCCGTGGCCTTGCTGCTCCACGCCGCCAGGCCGAGCCAGT
TCCGGGTGTCGCCGCTGGATCGGACCTGGAACCTGGGCGAGACAGTGGAGCTGAAGTGCCAGGTGCTGCT
GTCCAACCCGACGTCGGGCTGCTCGTGGCTCTTCCAGCCGCGGGCGCCGCCAGTCCCACCTTCCTC
CTATACCTCTCCAAAACAAGCCCAAGGGCGCCGAGGGGCTGGACCCAGCGGTTCTCGGGCAAGAGGT
TGGGGACACCTTCGTCCTCACCTGAGCGACTCCGCCGAGAGAACGAGGGCTGCTATTCTGCTCGGC
CCTGAGCAACTCCATCATGTACTTCAGCCACTTCGTGCCGGTCTTCTGCCAGCGAAGCCACCAGCAGC
CCAGCGCCGCGACCACCAACACCGGCGCCACCATCGCGTCGAGCCCTGTCCCTGCGCCAGAGGCGT
GCCGCGCAGCGCGGGGGCGCAGTGCACAGAGGGGGCTGGACTTCGCCTGTGATATCTACATCTGGGC
GCCCTTGGCCGGGACTTGTGGGGTCTTCTCCTGTCACTGGTTATCACCTTTACTGCAACCACAGGAAC
CGAAGACGTGTTGCAAATGTCCCAGCCTGTGGTCAAATCGGGAGACAAGCCAGCCTTTCGGCGAGAT
ACGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227316 protein sequence
Red=Cloning site Green=Tags(s)

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQVLLSNPTSGCSWLFQPRGAAASPTFL
 LYL SQNPKAAEGLDTRFSGKRLGDTFVLTLSDFRRENEGCFCSALSNSIMYF SHFVPVFLPAKPTTT
 PAPPPTPAPTIASQPLSLRPEACRPAAGGAVHTRGLDFACDIYIWAPLAGTCGVL LLSLVITLYCNHRN
 RRRVCKCPRPVVKS GDKPSLSARYV

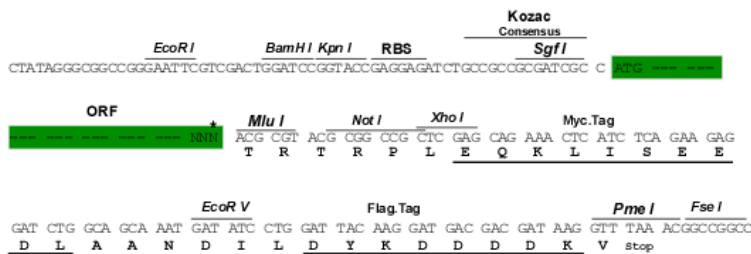
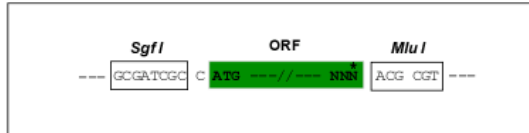
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6328_h03.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_001145873

ORF Size: 705 bp

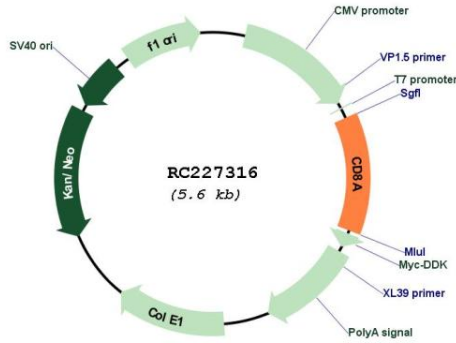
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

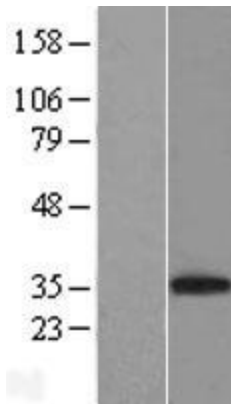
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	<u>NM_001145873.1</u> , <u>NP_001139345.1</u>
RefSeq Size:	3177 bp
RefSeq ORF:	708 bp
Locus ID:	925
UniProt ID:	<u>P01732</u>
Cytogenetics:	2p11.2
Protein Families:	Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transmembrane
Protein Pathways:	Antigen processing and presentation, Cell adhesion molecules (CAMs), Hematopoietic cell lineage, Primary immunodeficiency, T cell receptor signaling pathway
MW:	25.7 kDa
Gene Summary:	<p>The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8 antigen acts as a coreceptor with the T-cell receptor on the T lymphocyte to recognize antigens displayed by an antigen presenting cell in the context of class I MHC molecules. The coreceptor functions as either a homodimer composed of two alpha chains or as a heterodimer composed of one alpha and one beta chain. Both alpha and beta chains share significant homology to immunoglobulin variable light chains. This gene encodes the CD8 alpha chain. Multiple transcript variants encoding different isoforms have been found for this gene. The major protein isoforms of this gene differ by the presence or absence of a transmembrane domain and thus differ in being a membrane-anchored or secreted protein. [provided by RefSeq, May 2020]</p>

Product images:



Circular map for RC227316



Western blot validation of overexpression lysate (Cat# [LY429040]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227316 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).