

Product datasheet for **RC204852**

Granzyme A (GZMA) (NM_006144) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Granzyme A (GZMA) (NM_006144) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Granzyme A
Synonyms:	CTLA3; HFSP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204852 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGAACCTCTATAGATTTCTGGCATCCTCTCTCAGTTGTCGTTTCTCCTGCTAATTCCTGAAG
ATGTCTGTGAAAAAATTATTGGAGGAAATGAAGTAACTCCTCATTCAAGACCCTACATGGTCTACTTAG
TCTTGACAGAAAAACCATCTGTGCTGGGCTTTGATTGCAAAAGACTGGGTGTTGACTGCAGTCACTGT
AACTTGAACAAAAGGTCCAGGTCATTCTTGGGGCTCACTCAATAACCAGGAAGAGCCAACAAAACAGA
TAATGCTTGTTAAGAAAGAGTTTCCCTATCCATGCTATGACCCAGCCACACGCGAAGGTGACCTTAACT
TTTACAGCTGACGAAAAAGCAAAAATTAACAAATATGTGACTATCCTTCATCTACCTAAAAAGGGGGAT
GATGTGAAACCAGGAACCATGTGCCAAGTTGCAGGGTGGGGCAGGACTCACAATAGTGCATCTTGGTCCG
ATACTCTGAGAGAAGTCAATATCACCATCATAGACAGAAAAGTCTGCAATGATCGAAATCACTATAATTT
TAACCCTGTGATTGGAATGAATATGGTTTGTGCTGGAAGCCTCCGAGGTGGAAGAGACTCGTGCAATGGA
GATTCTGGAAGCCCTTTGTTGTGCGAGGGTGTTCGAGGGGCTCACTTCCTTTGGCCTTGAAAAAAT
GCGGAGACCCTCGTGGCCTGGTGTCTATATTCTCTCTCAAAGAACACCTCAACTGGATAATTATGAC
TATCAAGGGAGCAGTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204852 protein sequence
Red=Cloning site Green=Tags(s)

MRNSYRFLASSLSVVVSLLLIPEDVCEKIIGGNEVTPHSRPMVLLSLDRKTICAGALIAKDWLTAHC
 NLNKRQVILGAHSITREPTKQIMLVKKEFPYPCYDPATREGDLKLLQLTEKAKINKYVTLHLPKKG
 DVKPGTMCQVAGWRTHNSASWSDTLREVNITIIDRKVCNDRNHYNFNPVIGMNMVCAGSLRGRDSCNG
 DSGSPLLCEGVFRGVTSFGLNCKGDPGPGVYILLSKKHLNWIIMTIKGA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6425_e07.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_006144

ORF Size: 786 bp

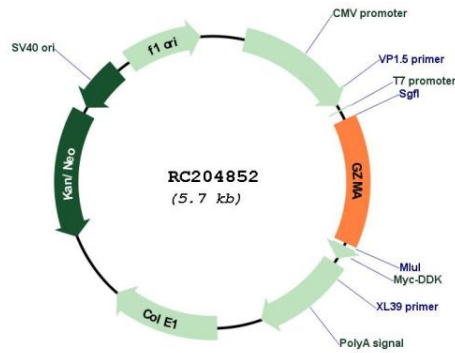
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

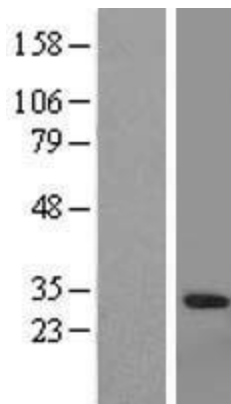
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_006144.3
RefSeq Size:	913 bp
RefSeq ORF:	789 bp
Locus ID:	3001
UniProt ID:	P12544
Cytogenetics:	5q11.2
Domains:	Tryp_SPc
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Neuroactive ligand-receptor interaction
MW:	29 kDa
Gene Summary:	Cytolytic T lymphocytes (CTL) and natural killer (NK) cells share the remarkable ability to recognize, bind, and lyse specific target cells. They are thought to protect their host by lysing cells bearing on their surface 'nonself' antigens, usually peptides or proteins resulting from infection by intracellular pathogens. The protein described here is a T cell- and natural killer cell-specific serine protease that may function as a common component necessary for lysis of target cells by cytotoxic T lymphocytes and natural killer cells. [provided by RefSeq, Jul 2008]

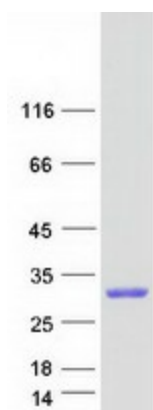
Product images:



Circular map for RC204852



Western blot validation of overexpression lysate (Cat# [LY416840]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204852 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GZMA protein (Cat# [TP304852]). The protein was produced from HEK293T cells transfected with GZMA cDNA clone (Cat# RC204852) using MegaTran 2.0 (Cat# [TT210002]).