

Product datasheet for RC207798

Granzyme K (GZMK) (NM_002104) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Granzyme K (GZMK) (NM_002104) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Granzyme K
Synonyms:	TRYP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207798 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACTAAGTTTTCTTCTTTCTGTGTTTTCTAATAGTTGGGGCTTATGACTCATGTGTGTTTCA
ATATGGAAATTATTGGAGGGAAAGAAGTGTACCTCATTCCAGGCCATTTATGGCTCCATCCAGTATGG
CGGACATCACGTTTGTGGAGGTGTCTGATTGATCCACAGTGGGTGCTGACAGCAGCCCACTGCCAATAT
CGGTTTACCAAAGGCCAGTCTCCACTGTGTTTTAGGCGCACACTCTCTCTCAAAGAATGAGGCCTCCA
AACAAACTGGAGATCAAAAAATTTATACCATTCTCAAGAGTTACATCAGATCCTCAATCAAATGATAT
CATGCTGGTTAAGCTTCAACAGCCGAAAACCAATAAACATGTCAAGATGCTCCACATAAGATCCAAA
ACCTCTCTTAGATCTGGAACCAAATGCAAGTTACTGGCTGGGGAGCCACCGATCCAGATTCATTAAGAC
CTTCTGACACCCTGCGAGAAGTCACTGTTACTGTCTAAGTCGAAAACCTTGAACAGCCAAAGTTACTA
CAACGGCGACCCTTTATCACCAAAGACATGGTCTGTGCAGGAGATGCCAAAGGCCAGAAGGATTCCTGT
AAGGGTGACTCAGGGGGCCCTTGATCTGTAAAGGTGTCTCCACGCTATAGTCTCTGGAGGTATGAAT
GTGGTGTGCCACAAAGCCTGGAATCTACACCTGTAAACCAAGAAATACCAGACTTGGATCAAAAGCAA
CCTTGTCCCGCCTCATACAAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207798 protein sequence
 Red=Cloning site Green=Tags(s)

MTKFSFSLFFLIVGAYMTHVCFNMEIIGGKEVSPHSRPFMASIQYGGHHVCGGVLIDPQWVLTAAHCQY
 RFTKGQSPTVVLGAHSLSKNEASKQTLEIKKFI PFSRVTS DPQSN DIML VKLQTA AKLNKHVKMLHIRSK
 TSLRSGTKCKVTGWGATDPDSL RPSDTLREVTVTLSRKL CNSQSYYNGDPFITKDMVCAGDAKGQK DSC
 KGDSGGPLICKGVFHAI VSGGHECGVATKPGIYTLLTKKYQTWIKSNLVPPHTN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6338_d06.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_002104

ORF Size: 792 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: [NM_002104.3](#)

RefSeq Size: 1074 bp

RefSeq ORF: 795 bp

Locus ID: 3003

UniProt ID: [P49863](#)

Cytogenetics: 5q11.2

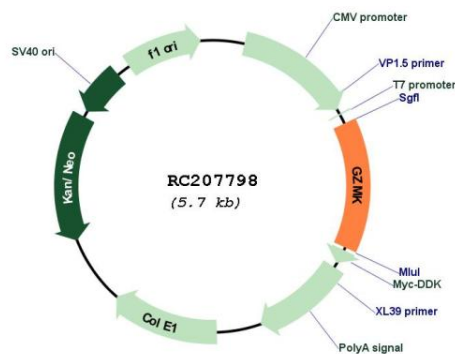
Domains: Tryp_SPc

Protein Families: Druggable Genome, Protease, Secreted Protein, Transmembrane

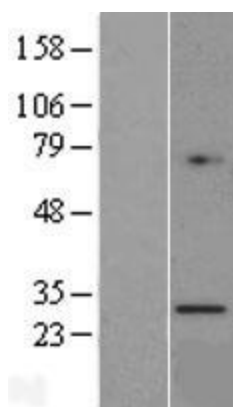
MW: 28.9 kDa

Gene Summary: This gene product is a member of a group of related serine proteases from the cytoplasmic granules of cytotoxic lymphocytes. 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 lacks consensus sequences for N-glycosylation present in other granzymes. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207798



Western blot validation of overexpression lysate (Cat# [LY419525]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207798 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).