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Product datasheet for RC218510

Perforin (PRF1) (NM_005041) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Perforin (PRF1) (NM_005041) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Perforin
Synonyms:	HPLH2; P1; PFP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC218510 representing NM_005041
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGCCCGTCTGCTCCTCCTGGGCATCCTTCTCCTGCTGCTGCCCCTGCCCGTCCCTGCCCCGTGCC
ACACAGCCGCACGCTCAGAGTGCAAGCGCAGCCACAAGTTCGTGCCTGGTGCATGGCTGGCCGGGGAGGG
TGTGGACGTGACCAGCCTCCGCCGCTCGGGCTCCTTCCCAGTGGACACACAAAGGTTCCTGCGGCCCGAC
GGCACCTGCACCCTCTGTGAAAATGCCCTACAGGAGGGCACCCTCCAGCGCCTGCCTCTGGCGCTCACCA
ACTGGCGGGCCCAGGGCTCTGGCTGCCAGCGCCATGTAACCAGGGCCAAAGTCAGCTCCACTGAAGCTGT
GGCCCGGGATGCGGCTCGTAGCATCCGCAACGACTGGAAGGTCGGGCTGGACGTGACTCCTAAGCCCACC
AGCAATGTGCATGTGTCTGTGGCCGGCTCACACTCACAGGCAGCCAACTTTGCAGCCCAGAAGACCCACC
AGGACCAGTACAGCTTCAGCACTGACACGGTGGAGTGCCGCTTCTACAGTTTCCATGTGGTACACACTCC
CCCGCTGCACCCTGACTTCAAGAGGGCCCTCGGGGACCTGCCCCACCACTTCAACGCCTCCACCCAGCCC
GCCTACCTCAGGCTTATCTCCAACTACGGCACCCACTTCATCCGGGCTGTGGAGCTGGGTGGCCGCATAT
CGGCCCTCACTGCCCTGCGCACCTGCGAGCTGGCCCTGGAAGGGCTCACGGACAACGAGGTGGAGGACTG
CCTGACTGTCGAGGCCCAGGTCAACATAGGCATCCACGGCAGCATCTCTGCCGAAGCCAAGGCCTGTGAG
GAGAAGAAGAAGAAGCACAAGATGACGGCCTCCTTCCACCAAACCTACCGGGAGCGCCACTCGGAAGTGG
TTGGCGGCCATCACACCTCCATTAACGACCTGCTGTTCGGGATCCAGGCCGGGCCCGAGCAGTACTCAGC
CTGGGTAAACTCGCTGCCCGGCAGCCCTGGCCTGGTGGACTACACCCTGGAACCCCTGCACGTGCTGCTG
GACAGCCAGGACCCGCGGCGGGAGGCACTGAGGAGGGCCCTGAGTCAGTACCTGACGGACAGGGCTCGCT
GGAGGGACTGCAGCCGGCCGTGCCCACCAGGGCGGCAGAAGAGCCCCCGAGACCCATGCCAGTGTGTGTG
CCATGGCTCAGCGGTCACCACCCAGGACTGCTGCCCTCGGCAGAGGGGCCTGGCCCAGCTGGAGGTGACC
TTCATCCAAGCATGGGGCCTGTGGGGGGACTGGTTCACTGCCACGGATGCCTATGTGAAGCTCTTCTTTG
GTGGCCAGGAGCTGAGGACGAGCACCGTGTGGGACAATAACAACCCCATCTGGTCAGTGCGGCTGGATTT
TGGGGATGTGCTCCTGGCCACAGGGGGGCCCCTGAGGTTGCAGGTCTGGGATCAGGACTCTGGCAGGGAC
GATGACCTCCTTGGCACCTGTGATCAGGCTCCCAAGTCTGGTTCCCATGAGGTGAGATGCAACCTGAATC
ATGGCCACCTAAAATTCCGCTATCATGCCAGGTGCTTGCCCCACCTGGGAGGAGGCACCTGCCTGGACTA
TGTCCCCCAAATGCTTCTGGGGGAGCCTCCAGGAAACCGGAGTGGGGCCGTGTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218510 representing NM_005041
Red=Cloning site Green=Tags(s)

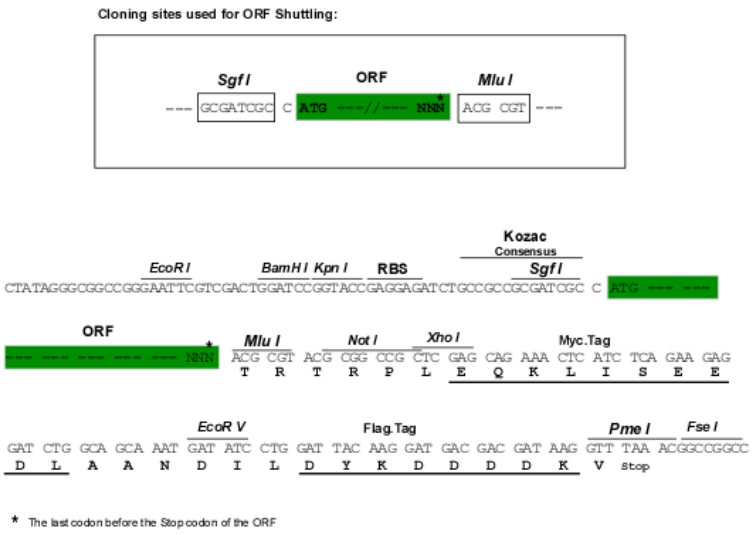
MAARLLLLGILLLLLPLPVPAPCHTAARSECKRSHKFVPGAWLAGEGVDVTSLRRSGSFPVDTQRFLRPD
GTCTLCENALQEGTLQRLPLALTNWRAQGSGCQRHVTRAKVSSTEAVARDAARSIRNDWKVGLDVTPKPT
SNVHVSVAGSHSQAANFAAQKTHQDQYSFSTDTVECRFYSFHVVHTPPLHPDFKRALGDLPHHFNASTQP
AYLRLISNYGTHFIRAVELGGRISALTALRTCELALEGLTDNEVEDCLTVEAQVNIGIHGSISAEAKACE
EKKKKHKMTASFHQTYRERHSEVVGGHHTSINDLLFGIQAGPEQYSAWVNSLPGSPGLVDYTLEPLHVLL
DSQDPRREALRRALSQYLTDRARWRDCSRPCPPGRQKSPRDPCQCVCHGSAVTTQDCCPRQRGLAQLEVT
FIQAWGLWGDWFTATDAYVKLFFGGQELRTSTVWDNNNPIWSVRLDFGDVLLATGGPLRLQVWDQDSGRD
DDLLGTCDQAPKSGSHEVRCNLNHGHLKFRYHARCLPHLGGGTCLDYVPQMLLGEPPGNRSGAVW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8078_d12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005041

ORF Size: 1665 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

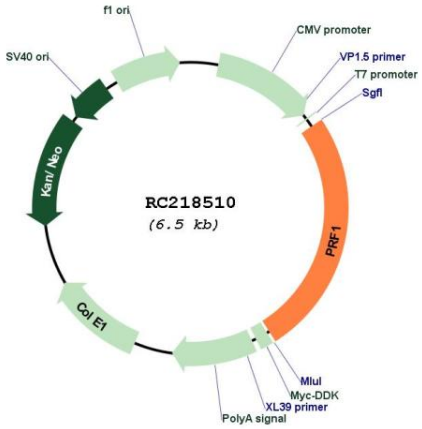
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_005041.5

RefSeq Size:	2512 bp
RefSeq ORF:	1668 bp
Locus ID:	5551
UniProt ID:	P14222
Cytogenetics:	10q22.1
Domains:	C2, MACPF
Protein Families:	Druggable Genome
Protein Pathways:	Allograft rejection, Autoimmune thyroid disease, Graft-versus-host disease, Natural killer cell mediated cytotoxicity, Type I diabetes mellitus, Viral myocarditis
MW:	61.38 kDa
Gene Summary:	This gene encodes a protein with structural similarities to complement component C9 that is important in immunity. This protein forms membrane pores that allow the release of granzymes and subsequent cytolysis of target cells. Whether pore formation occurs in the plasma membrane of target cells or in an endosomal membrane inside target cells is subject to debate. Mutations in this gene are associated with a variety of human disease including diabetes, multiple sclerosis, lymphomas, autoimmune lymphoproliferative syndrome (ALPS), aplastic anemia, and familial hemophagocytic lymphohistiocytosis type 2 (FHL2), a rare and lethal autosomal recessive disorder of early childhood. [provided by RefSeq, Aug 2017]

Product images:



Circular map for RC218510