

Product datasheet for **RG208940**

Perforin (PRF1) (NM_001083116) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Perforin (PRF1) (NM_001083116) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PRF1
Synonyms:	HPLH2; P1; PFP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208940 representing NM_001083116
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGCCCGTCTGCTCCTCTGGGCATCCTTCTCTGCTGCTGCCCTGCCCGTCCCTGCCCCGTGCC
 ACACAGCCGCACGCTCAGAGTGCAAGCGCAGCCACAAGTTCGTGCCTGGTGCATGCTGGCCGGGAGGG
 TGTGGACGTGACCAGCCTCCGCCCTCGGGCTCCTTCCAGTGGACACACAAAGTTCTGCGGCCCGAC
 GGCACCTGCACCCTCTGTAAAAATGCCCTACAGGAGGGCACCCCTCCAGCGCCTGCCTCTGGCGCTACCA
 ACTGGCGGGCCAGGGCTCTGGCTGCCAGCGCCATGTAACCAGGGCCAAAGTCAGCTCCACTGAAGCTGT
 GGCCCGGATGCGGCTCGTAGCATCCGCAACGACTGGAAGGTGGGCTGGACGTGACTCCTAAGCCACC
 AGCAATGTGCATGTGTCTGTGGCCGCTCACACTCACAGGCAGCCAACTTTCAGCCCAGAAGACCACC
 AGGACCAGTACAGCTTACAGACTGACACGGTGGAGTCCGCTTACAGTTTCCATGTGGTACACACTCC
 CCCGCTGCACCCTGACTTCAAGAGGGCCCTCGGGACCTGCCCCACCCTTCAACGCCTCCACCCAGCCC
 GCCTACCTCAGGCTTATCTCCAACCTACGGCACCCACTTCACTCCGGCTGTGGAGCTGGGTGGCCGATAT
 CGGCCCTCACTGCCCTGCGCACCTGCGAGCTGGCCCTGGAAGGGCTCACGGACAACGAGGTGGAGGACTG
 CCTGACTGTGAGGCCAGGTCAACATAGGCATCCACGGCAGCATCTCTGCCGAAGCCAAGGCCTGTGAG
 GAGAAGAAGAAGAAGCACAAGATGACGGCTCCTTCCACCAAACCTACCGGGAGCGCCATTCGGAAGTGG
 TTGGCGGCCATCACACCTCCATTAACGACTGCTGTTCCGGATCCAGGCCGGGCCGAGCAGTACTCAGC
 CTGGGTAACCTCGCTGCCCGCAGCCCTGGCCTGGTGGACTACACCCTGGAACCCCTGCACGTGCTGCTG
 GACAGCCAGGACCCGCGCGGGAGGCACCTGAGGAGGGCCCTGAGTCAGTACCTGACGGACAGGGCTCGT
 GGAGGGACTGCAGCCGGCCGTGCCACCCAGGGCCGAGAAGAGCCCCGAGACCCATGCCAGTGTGTGTG
 CCATGGCTCAGCGGTACCACCCAGGACTGCTGCCCTCGGCAGAGGGCCCTGGCCAGCTGGAGGTGACC
 TTCATCCAAGCATGGGGCTGTGGGGGACTGGTTCCTGACCAGGATGCCTATGTGAAGCTCTTCTTTG
 GTGGCCAGGAGCTGAGGACGAGCACCGTGTGGACAATAACAACCCCATCTGGTCAGTGGGCTGGATTT
 TGGGGATGTGCTCCTGGCCACAGGGGGGCCCTGAGGTTGAGGTCTGGGATCAGGACTCTGGCAGGGAC
 GATGACCTCCTTGGCACCTGTGATCAGGCTCCCAAGTCTGGTTCCCATGAGGTGAGATGCAACCTGAATC
 ATGGCCACCTAAAATCCGCTATCATGCCAGGTGCTTCCCCACCTGGGAGGAGGCACCTGCCTGGACTA
 TGTCGCCCAAATGCTTCTGGGGGAGCCTCCAGGAAACCGAGTGGGGCCGTGTGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG208940 representing NM_001083116
 Red=Cloning site Green=Tags(s)

MAARLLLLGILLLLLPLPVPAPCHTAARSECKRSHKFPVPGAWLAGEGVDVTSLRRSGSFPVDTQRFLRPD
 GTCTLCEALQEGTLQRLPLALTNWRAQSGCQRHVTRAKVSSTEAVARDAARSIRNDWKVGLDVTPKPT
 SNVHVSVAGSHSQAANFAAQKTHQDQYSFSTDTVECRFYSFHVHTPPLHPDFKRALGDLPHHFNASTQP
 AYLRLISNYGTHFIRAVELGGRISALTALRTCELALEGLTDNEVEDCLTVEAQVNIIGIHGSI SAEAKACE
 EKKKKHKMTASFHQTYRERHSEVVGHHSTINDLLFGIQAGPEQYSAWVNSLPGSPGLVDYTLPLHVL
 DSQDPRREALRRALSQYLTDRAWRDCSRPCPPGRQKSPRDCQCVCHGSAVTTQDCCPRQRGLAQLVET
 FIQAWGLWGDWFTATDAYVKLFFGGQELRTSTVWDNNNP IWSVRLDFGDVLLATGGPLRLQVWDQDSGRD
 DLLLGTCDQAPKSGSHEVRCNLNHGHLKFRYHARCLPHLGGTCLDYVPQMLLGEPPGNRSGAVW

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

ACCN:	NM_001083116
ORF Size:	1665 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:	NM_001083116.1 , NP_001076585.1
RefSeq Size:	2555 bp
RefSeq ORF:	1668 bp
Locus ID:	5551
UniProt ID:	P14222
Cytogenetics:	10q22.1
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
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]