

Product datasheet for **SC116957**

Perforin (PRF1) (NM_005041) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Perforin (PRF1) (NM_005041) Human Untagged Clone
Tag:	Tag Free
Symbol:	Perforin
Synonyms:	HPLH2; P1; PFP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC116957 sequence for NM_005041 edited (data generated by NextGen Sequencing)

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ATGGCAGCCCGTCTGCTCCTCCTGGGCATCCTTCTCCTGCTGCTGCCCTGCCCGTCCCT
GCCCCGTGCCACACAGCCGACGCTCAGAGTGCAAGCGCAGCCACAAGTTCGTGCCTGGT
GCATGGCTGGCCGGGAGGGTGTGGACGTGACCAGCCTCCGCCGCTCGGGCTCCTTCCA
GTGGACACACAAAAGTTCTGCGGCCGACGGCACCTGCACCCTCTGTGAAAATGCCCTA
CAGGAGGGCACCCCTCCAGCGCTGCCTCTGGCGCTCACCAACTGGCGGGCCAGGGCTCT
GGCTGCCAGCGCCATGTAACCAGGGCCAAAGTCAGCTCCACTGAAGCTGTGGCCCGGAT
GCGGCTCGTAGCATCCGCAACGACTGGAAGTTCGGGCTGGACGTGACTCCTAAGCCACC
AGCAATGTGCATGTGTCTGTGGCCGGCTCACACTCACAGGCAGCCAACTTTCAGCCAG
AAGACCCACCAGGACCAGTACAGCTTACAGACTGACACGGTGGAGTGGCGTTTACAGT
TTCCATGTGGTACACACTCCCCGCTGCACCCTGACTTCAAGAGGGCCCTCGGGACCTG
CCCCACACTTCAACGCCTCCACCCAGCCCGCTACCTCAGGCTTATCTCCAACACGGC
ACCCACTTCATCCGGGCTGTGGAGCTGGGTGGCCGCATATCGGCCCTCACTGCCCTGCGC
ACCTGCGAGCTGGCCCTGGAAGGGCTCACGGACAACGAGGTGGAGGACTGCCTGACTGTC
GAGGCCAGGTCAACATAGGCATCCACGGCAGCATCTCTGCCAAGCCAAAGCCTGTGAG
GAGAAGAAGAAGAAGCACAAAGATGACGGCCTCCTTCCACCAAACCTACCGGGAGCGCCAT
TCGGAAGTGGTTGGCGGCATCACACCTCCATTAACGACCTGCTGTTCCGGATCCAGGCC
GGGCCCGAGCAGTACTCAGCCTGGGTAACCTCGCTGCCCGGCAGCCCTGGCCTGGTGGAC
TACACCTGGAACCCCTGCACGTGCTGCTGGACAGCCAGGACCCGCGGGGAGGCACTG
AGGAGGGCCCTGAGTCAGTACCTGACGGACAGGGCTCGCTGGAGGGACTGCAGCCGGCCG
TGCCACACAGGGCGGCAAGAGCCCGGAGACCCATGCCAGTGTGTGCCATGGCTACA
CGGGTACCACCCAGGACTGCTGCCCTCGGCAGAGGGGCTGGCCAGCTGGAGGTGAC
TTCATCCAAGCATGGGGCTGTGGGGGACTGGTTCAGTCCACGGATGCCTATGTGAAG
CTTTCTTTGGTGGCCAGGAGCTGAGGACGAGCACCGTGTGGACAATAACAACCCATC
TGGTCAGTGGCGCTGGATTTTGGGGATGTGCTCCTGGCCACAGGGGGGCCCTGAGGTTG
CAGGTCTGGGATCAGGACTCTGGCAGGGACGATGACCTCCTTGGCACCTGTGATCAGGCT
CCCAAGTCTGGTTCCCATGAGGTGAGATGCAACCTGAATCATGGCCACCTAAAATCCGC
TATCATGCCAGGTGCTTGCCCCACCTGGGAGGAGGCACCTGCCTGGACTATGTCCCCAA
ATGCTTCTGGGGAGCCTCCAGGAAACCGAGTGGGGCCGTGTGGTGA
    
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Clone variation with respect to NM_005041.4
900 c=>t

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_005041 unedited
TTGTAATACGACTCACTATAGGGCGCCGCAATTCGGCACGAGGGTGAAGAGAGGATAT
CCATCTGTGTAGCCGCTTCTCTATACGGGATTCAGCTCCATGGCAGCCCGTCTGCTCCT
CCTGGGCATCCTTCTCCTGCTGCTGCCCTGCCGTCCCTGCCCGTGCCACACAGCCGC
ACGCTCAGAGTGAAGCGCAGCCACAAGTTCGTGCCTGGTGCATGGCTGGCCGGGAGGG
TGTGGACGTGACCAGCCTCCGCCCTCGGGCTCCTTCCAGTGGACACACAAAAGTTCTT
GCGGCCGACGGCACCTGCACCCTCTGTGAAAATGCCCTACAGGAGGGCACCCCTCCAGCG
CCTGCCTCTGGCGCTCACCAACTGGCGGGCCAGGGCTCTGGCTGCCAGCGCCATGTAAC
CAGGGCCAAAGTCAGCTCCACTGAAGCTGTGGCCCGGATGCGGCTCGTAGCATCCGCAA
CGACTGGAAGGTGGGCTGGACGTGACTCCTAAGCCACCAGCAATGTGCATGTGTCTGT
GGCCGGCTCACACTCACAGGCAGCCAACTTTCAGCCCAAGACCCACCAGGACCAGTA
CAGCTTACAGCACTGACACGGTGGAGTGGCGCTTACAGTTTCCATGTGGTACACACTCC
CCCCTGCACCCTGACTTCAAGAGGGCCCTNCGNGACCTGCCCCACCCTTAAACGCCTC
CACCCAGCCNGNCTACCTNAGGCTATCTNCAACTACGGGACCCACTTCATCCGGGCTGTG
GAGCTGGGTGGCCGATATCGGCCCTCACTGCCCTCGCACCTGCGAGCTGGCCCTGGNAAG
GCTCACCGNACAACGAGTGNAGGACTGNCTGACTGTGAGCCCCAGTTAACATAAGCATT
CCCGGAGAATTTCTGCCGAAACAAAGCCTGTGAGAAAAANAATAAGCACAGATGACGCC
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_005041 unedited ACCGCGGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTCCACCATAACATCATAT TTATTGGCCCTTATCAAGCTATGTACATGGTGAGACAGGTCAGGACAGGCCTCCATTTG TCTCAGGGGCAAAGCATTGTGGGCAAAGAAGACAGAGCAGCTGGAGCTGATGGGGCTCCA GTTAAGGCAATGAAGGCTTTGCCACACCATAGAGGGCTCAAGGGAAGGGTCTAAAAGAC CAGCCCTGAGCAGCCTGGTGGGAACAGCCTCTTGGCCTTCTGCCAGCTCCTGGCTGAAG CTGTGATCTGTGTAGCTGTGACTGCAGGGCTTGAGAATGGCGGAGGGCTTAGGCAGTTTG GACAGGGTGAATCGGGATTAGCGTGATAAACCCAGCCACCTCCCTGAAAAACAGTCTGAAT CTCCCTTTTCCATCTGTCTGATGCGTATCCAATCTTTTGGCTTCTCTGGGCCACGTTGGA AGAAGAATTGTGTGGGCCACATGTAAAATCCACTAGCACTAACGATAGCCGATGAGCTA AAAAAAAAAAAAATAGCAAAAAGAACTATAATGTTTTAAGAAAGTTTGCAATTTGC GTTGGGCCGATTCAAAGCCATCTGGGCCGATGCGGGCCTCGGGTTGGATAAGCTTGG TCTAATGGGAATACGAGGACAGCCTTGGCTCCCACTGTGAGAACCCTTCAGTCCAAGCA TACTGGTCCTTTNTCAGCTCACTGTTCTACCACCCGGCCCCACCTCCGTTTTCTGGAA GCCTCCCCCAGAAGCATTGGGGGACATAGTCCAGGCAGGTCGTTTCTCCAGTGGGGC AAGCACCTGCATGATAGCGAATTTTAGGTGGCCTGGATCACGTTGCATCTCACCTCAT GGAACCAAAGTGGACCTGATCACAGTGCCAAGGAGTCATTGTCCCTGGCAAAACCTG ATCCAGACCGAACCTGG
Restriction Sites:	NotI-NotI
ACCN:	NM_005041
Insert Size:	2500 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
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_005041.3 , NP_005032.2

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
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the shorter transcript. Both variants 1 and 2 encode the same protein.</p>