

Product datasheet for **SC312706**

PIF1 (NM_025049) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIF1 (NM_025049) Human Untagged Clone
Tag:	Tag Free
Symbol:	PIF1
Synonyms:	C15orf20; PIF
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_025049 edited
TGAGTGTCTGGCACAACACAGCAGAGGCGGTGACGATGCTCTCGGGCATAGAGGCGGCGGC
AGGGGAATATGAGGACTCGGAGCTGCGGTGCCCGTGGCTGTGGAGGAGCTGAGCCCGGG
CGGGCAGCCGGAAGGCGCCAGGCCCTGCCACCGCGGAGCTGAGCCTGGGTCCGAACGA
GCGCCGCGAGTTGATGCTGCGGCTGCAAGCGCCAGGGCCCGGGGGCGCCGCGCTGCTT
CCCTCTGCGCGCCGCGCGCTTTCACGCGTTTCGCCGAGGCCGGGCGCAGCACCCCTGCC
GCTCCCCGCCACGACACCCCCGGGGCCGGCGCAGTGCAGCTGCTGCTCTCGGACTGCC
CCCAGACCGCTGCGCCGCTTCTGCGCACATTGCGCCTCAAGCTGGCTGCGGCCCGGG
TCCCGGGCCGGCCTCCGCCGAGCGCAGCTGCTGGGCCCGCGGCCCGGACTTCGTAC
CATCAGCCCTGTGCAGCCGAGGAGCGCGGCTCAGGGCGGCCACCCGGTTCCGGACAC
TACGCTGGTGAAGCGCCTGTGGAGCCCCAGGCTGGGGCCGAGCCTAGCACAGAAGCCCC
AAGGTGGCCCTGCCTGTGAAGAGGCTGAGCTTGCCTCCACCAAGCCACAGCTTTCTGA
GGAACAGGCTGCTGTGCTGAGGGCCGCTCTGAAAGGCCAGAGCATCTTCTTACTGGGAG
TGCAGGAACAGGGAAGTCATATCTGCTAAAGCGAATCCTGGGCTCACTGCCCCCACAGG
CACTGTGGCCACTGCCAGCACTGGGGTGGCAGCCTGCCACATCGGGGGCACCACCCTCCA
TGCTTTGCAGGCATCGGCTCAGGCCAGGCTCCTTAGCCAGTGTGTGGCCTGGCCCA
AAGGCCAGGCGTCCGGCAGGGCTGGCTGAACTGCCAGCGTTGGTCAATTACGAGATCTC
AATGGTGGAGGCAGACCTGTTTGACAACTGGAGGCCGTGGCCAGAGCTGTCCGGCAGCA
GAACAAGCCATTCGGAGGGATCCAGTCATCATCTGTGGGGACTTTCTGCAGTGCCACC
TGTGACCAAGGGCTCCCAGCCCCACGGTTCTGCTTCCAGTCCAAGAGCTGGAAGAGGTG
TGTGCCAGTGACCCTGGAGCTGACCAAGGTGTGGAGGCAGGCAGACCAGACCTTCATCTC
TCTACTGCAGCCGCTGAGGCTAGGCAGGTGTTGAGATGAGGTGACCCGCCAGCTCCAGGC
CACAGCTTCCACAAGGTGGGGCAGATGGGATTGTGGCCACAGGCTCTGCACCCACCA
GGATGATGTGGCCCTACCAACGAGAGGGCGCTTCAAGGAGTGCAGGTAAAGTACACAG
ATTTGAGGCTATGGACAGCAACCCTGAGCTGGCCAGTACCCTGGATGCCAGTGTCTGT
TAGCCAGCTCCTTCAACTAAAGCTGGGGGCCAGGTGATGCTGGTAAAAACTTATCGGT
GTCTCGGGCCTGGTGAATGGTGCCCGAGGGTGGTAGTTGGGTTGAGGCAGAAAGGGAG
AGGGCTACCCAGGTGCGGTTCTGTGTGGAGTCACTGAGGTCAACAGCTGACCGCTG
GACGGTGCAGGCCACCGGGGCCAGCTCCTCAGTCGGCAGCAGCTGCCCCCAGCTGGC
CTGGGCGATGTCCATCCACAAGAGCCAAGGCATGACCCTGGATTGTGTGGAGATTTCTC
GGGCCGTGTGTTGCCAGTGGCCAGGCCTATGTGGCCCTTCTCGGGCCCGCAGCCTGCA
GGGCTACGTGTGCTGGACTTTGACCCATGGCGGTTGCTGTGACCCCGTGTGCTGCA
CTTCTATGCCACCCTGCGGCGGGCAGGAGCCTCAGTCTGGAGTCCCAGATGATGATGA
GGCAGCCTCAGACCAGGAGAACATGGACCCAATCCTCTGAGCCTACCCACAAAGAGAAG
ACAAAGGGTGGCCTGTGGCCTCCCCGCTCCTCTGCTCCCTAGTGGCCAGGGCCTCAGGG
AATAACTGGAGTAGGCAGGCAGTGTCCCCTTCTGTATTTTTAGGGACTCTCAGCCTCCT
GGCAGGGTTAAAGGGAGAGTACTTTAAACCCATATACCAGCTGTGCTTCAGTTTCTCA
GAGCCTGTGTGGTAGCTGATGTGAGGACAGAAAGCTCTCTGCAAGGGCTGGACACAGAGC
TGCAGAGTCCCTGAACATCCCTCCTTTAGGCTGCAGAAGGGAGAGGCAATGAAGACAGGT
GCTCCGGAAGCAGCATCAGGGCTCTTGGAGGGACTGGTGGGACTCAGGCTGGGTGCAG
CCTCCAAAACAGAGAACGGAACCTTAGGTGTGCTCTACAGCTAGGCCAGCCTAGCCACG
CCAGAACAACACCCCTTCCAGAGCCTAACCAAGAACATAAGCTGCAAAATGTGCACCCAT
ATTTAAAGCTGCTTTTCCAGGGATAAATAGTGTGGGGACATTGAAATGGATGTTCTC
AGGTTGATTTATTTCCGACAAAATAAAGTAGAGAATTGTGTAACAAAAAAAAAAAAAAAAA
AAA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_025049 unedited
 CCTCATTCCCCCGCCCGTTGNCGCAATGGGCGGTAGGCGTGACGGTGGGAGGTCTATAT
 AAGCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGC
 CGCGAATTCGGCACGAGGTGAGTGTGCGCACAAACCAGCAGAGGCGGTGACGATGCTCTC
 GGGCATAGAGGCGGCGGCAGGGGAATATGAGGACTCGGAGCTGCGGTGCCGCGTGGCTGT
 GGAGGAGCTGAGCCCGGGCGGGCAGCCGCGAAGGCGCCAGGCCCTGCGCACCCGGGAGCT
 GAGCCTGGGTGCGAACGAGCGCCGCGAGTTGATGCTGCGGCTGCAAGCGCCAGGGCCCGC
 GGGGCGGCGCGCTGCTTCCCTCTGCGCGCCGCGCCTCTTACGCGTTTTGCGCGAGGC
 CGGGCGCAGCACCTGCGGCTCCCCGCCACGACACCCCGGGGCGGCGCAGTGACGCT
 GCTGCTCTCGGACTGCCCCAGACCGCCTGCGCCGTTCTGCGCACATTGCGCCTCAA
 GCTGGTGTGCGGCCCGGGTCCCGGGCCGGCCTCCGCCGAGCGCAGCTGCTGGGCCGCG
 GCCCGCGACTTCGTACCATCAGCCCTGTGCAGCCGAGGAGCGGCGGCTCAGGGCGGC
 CACCCGGGTTCCGGACACTACGCTGGTGAAGCGCCTGTGGAGCCCCACGCTGGGCGGC
 GCCTAGCACAGAAGCCCTAGGTGGCCCTGCCTGTGAAGAGGCTGCACTTGCCCTCCACC
 AGCCCAGTTTCTGAGCACAGGCTGTGGTCTGGGTCTCCTGACAGCCATACATTTCTTC
 ATGGTCTGACGAACCGGAATCCTATTTGTTCAAGCGATCCTGGTCTCCTGTCCCCCGG
 CCTG

Restriction Sites:

NotI-NotI

ACCN:

NM_025049

Insert Size:

2600 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_025049.1](#), [NP_079325.1](#)

RefSeq Size: 1668 bp

RefSeq ORF: 801 bp

Locus ID: 80119

UniProt ID: [Q9H611](#)

Cytogenetics: 15q22.31

Gene Summary: This gene encodes a DNA-dependent adenosine triphosphate (ATP)-metabolizing enzyme that functions as a 5' to 3' DNA helicase. The encoded protein can resolve G-quadruplex structures and RNA-DNA hybrids at the ends of chromosomes. It also prevents telomere elongation by inhibiting the actions of telomerase. Alternative splicing and the use of alternative start codons results in multiple isoforms that are differentially localized to either the mitochondria or the nucleus. [provided by RefSeq, Nov 2013]

Transcript Variant: This variant (2) uses an alternate splice site in the 5' UTR, compared to variant 1. This variant can initiate translation from both an upstream and a downstream AUG start codon. The isoform represented in this variant (a, also known as alpha or alpha-1) initiates translation from the upstream AUG. This isoform localizes to the nucleus (PMID: 17827721). Variants 1 and 2 encode the same isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.