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# Product datasheet for SC305937

## PGC1 beta (PPARGC1B) (NM_133263) Human Untagged Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | PGC1 beta (PPARGC1B) (NM_133263) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | PGC1 beta |
| **Synonyms:** | ERRL1; PERC; PGC-1(beta); PGC1B |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pCMV6-XL4 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

**Fully Sequenced ORF:**

>OriGene sequence for NM_133263 edited
CCACCTGGCTGCCTGCGCTTTACCCCTTGCTGAGGGCTGCGTGAGCTGGTCGCGGCGCCA
GACACGGCGCAGGAAAGTGGGTGAGCGACCCCCGGCTCCCGCGGGCGCCGCGCGGCCCCG
CCCCCGCAGCTAGCGGCCCTGCGGCAGCCGGGGGCTCGAGCTCCGCCCTCCGCCTCCCGC
CGGCCTCACTCCCTCCTCCCTCCTCCCTTGCTCGCTCGCTGGCTCCCTCCCCCCGGGCCG
GCTCGGCGTTGACTCCGCCGCACGCTGCAGCCGCGGCTGGAAGATGGCGGGGAACGACTG
CGGCGCGCTGCTGGACGAAGAGCTCTCCTCCTTCTTCCTCAACTATCTCGCTGACACGCA
GGGTGGAGGGTCCGGGGAGGAGCAACTCTATGCTGACTTTCCAGAACTTGACCTCTCCCA
GCTGGATGCCAGCGACTTTGACTCGGCCACCTGCTTTGGGGAGCTGCAGTGGTGCCCAGA
GAACTCAGAGACTGAACCCAACCAGTACAGCCCCGATGACTCCGAGCTCTTCCAGATTGA
CAGTGAGAATGAGGCCCTCCTGGCAGAGCTCACCAAGACCCTGGATGACATCCCTGAAGA
TGACGTGGGTCTGGCTGCCTTCCCAGCCCTGGATGGTGGAGACGCTCTATCATGCACCTC
AGCTTCGCCTGCCCCCTCATCTGCACCCCCCAGCCCTGCCCCGGAGAAGCCCTCGGCCCC
AGCCCCTGAGGTGGACGAGCTCTCACTGCTGCAGAAGCTCCTCCTGGCCACATCCTACCC
AACATCAAGCTCTGACACCCAGAAGGAAGGGACCGCCTGGCGCCAGGCAGGCCTCAGATC
TAAAAGTCAACGGCCTTGTGTTAAGGCGGACAGCACCCAAGACAAGAAGGCTCCCATGAT
GCAGTCTCAGAGCCGAAGTTGTACAGAACTACATAAGCACCTCACCTCGGCACAGTGCTG
CCTGCAGGATCGGGGTCTGCAGCCACCATGCCTCCAGAGTCCCCGGCTCCCTGCCAAGGA
GGACAAGGAGCCGGGTGAGGACTGCCCGAGCCCCCAGCCAGCTCCAGCCTCTCCCCAGGA
CTCCCTAGCTCTGGGCAGGGCAGACCCCGGTGCCCCGGTTTCCCAGGAAGACATGCAGGC
GATGGTGCAACTCATACGCTACATGCACACCTACTGCCTCCCCCAGAGGAAGCTGCCCCC
ACAGACCCCTGAGCCACTCCCCAAGGCCTGCAGCAACCCCTCCCAGCAGGTCAGATCCCG
GCCCTGGTCCCGGCACCACTCCAAAGCCTCCTGGGCTGAGTTCTCCATTCTGAGGGAACT
TCTGGCTCAAGACGTGCTCTGTGATGTCAGCAAACCCTACCGTCTGGCCACGCCTGTTTA
TGCCTCCCTCACACCTCGGTCAAGGCCCAGGCCCCCCAAAGACAGTCAGGCCTCCCCTGG
TCGCCCGTCCTCGGTGGAGGAGGTAAGGATCGCAGCTTCACCCAAGAGCACCGGGCCCAG
ACCAAGCCTGCGCCCACTGCGGCTGGAGGTGAAAAGGGAGGTCCGCCGGCCTGCCAGACT



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GCAGCAGCAGGAGGAGGAAGACGAGGAAGAAGAGGAGGAGGAAGAGGAAGAAGAAAAAGA
GGAGGAGGAGGAGTGGGGCAGGAAAAGGCCAGGCCGAGGCCTGCCATGGACGAAGCTGGG
GAGGAAGCTGGAGAGCTCTGTGTGCCCCGTGCGGCGTTCTCGGAGACTGAACCCTGAGCT
GGGCCCCTGGCTGACATTTGCAGATGAGCCGCTGGTCCCCTCGGAGCCCCAAGGTGCTCT
GCCCTCACTGTGCCTGGCTCCCAAGGCCTACGACGTAGAGCGGGAGCTGGGCAGCCCCAC
GGACGAGGACAGTGGCCAAGACCAGCAGCTCCTACGGGGACCCCAGATCCCTGCCCTGGA
GAGCCCCTGTGAGAGTGGGTGTGGGGACATGGATGAGGACCCCAGCTGCCCGCAGCTCCC
TCCCAGAGACTCTCCCAGGTGCCTCATGCTGGCCTTGTCACAAAGCGACCCAACTTTTGG
CAAGAAGAGCTTTGAGCAGACCTTGACAGTGGAGCTCTGTGGCACAGCAGGACTCACCCC
ACCCACCACACCACCGTACAAGCCCACAGAGGAGGATCCCTTCAAACCAGACATCAAGCA
TAGTCTAGGCAAAGAAATAGCTCTCAGCCTCCCCTCCCCTGAGGGCCTCTCACTCAAGGC
CACCCCAGGGGCTGCCCACAAGCTGCCAAAGAAGCACCCAGAGCGAAGTGAGCTCCTGTC
CCACCTGCGACATGCCACAGCCCAGCCAGCCTCCCAGGCTGGCCAGAAGCGTCCCTTCTC
CTGTTCCTTTGGAGACCATGACTACTGCCAGGTGCTCCGACCAGAAGGCGTCCTGCAAAG
GAAGGTGCTGAGGTCCTGGGAGCCGTCTGGGGTTCACCTTGAGGACTGGCCCCAGCAGGG
TGCCCCTTGGGCTGAGGCACAGGCCCCTGGCAGGGAGGAAGACAGAAGCTGTGATGCTGG
TGCCCCACCCAAGGACAGCACGCTGCTGAGAGACCATGAGATCCGTGCTAGCCTCACCAA
ACACTTTGGGCTGCTGGAGACCGCCCTGGAGGAGGAAGACCTGGCCTCCTGCAAGAGCCC
TGAGTATGACACTGTCTTTGAAGACAGCAGCAGCAGCAGCGGCGAGAGCAGCTTCCTCCC
AGAGGAGGAAGAGGAAGAAGGGGAGGAGGAGGAGGAGGACGATGAAGAAGAGGACTCAGG
GGTCAGCCCCACTTGCTCTGACCACTGCCCCTACCAGAGCCCACCAAGCAAGGCCAACCG
GCAGCTCTGTTCCCGCAGCCGCTCAAGCTCTGGCTCTTCACCCTGCCACTCCTGGTCACC
AGCCACTCGAAGGAACTTCAGATGTGAGAGCAGAGGGCCGTGTTCAGACAGAACGCCAAG
CATCCGGCACGCCAGGAAGCGGCGGGAAAAGGCCATTGGGGAAGGCCGCGTGGTGTACAT
TCAAAATCTCTCCAGCGACATGAGCTCCCGAGAGCTGAAGAGGCGCTTTGAAGTGTTTGG
TGAGATTGAGGAGTGCGAGGTGCTGACAAGAAATAGGAGAGGCGAGAAGTACGGCTTCAT
CACCTACCGGTGTTCTGAGCACGCGGCCCTCTCTTTGACAAAGGGCGCTGCCCTGAGGAA
GCGCAACGAGCCCTCCTTCCAGCTGAGCTACGGAGGGCTCCGGCACTTCTGCTGGCCCAG
ATACACTGACTACGATTCCAATTCAGAAGAGGCCCTTCCTGCGTCAGGGAAAAGCAAGTA
TGAAGCCATGGATTTTGACAGCTTACTGAAAGAGGCCCAGCAGAGCCTGCATTGATAACA
GCCTTAACCCTCGAGGAATACCTCAATACCTCAGACAAGGCCCTTCCAATATGTTTACGT
TTTCAAAGAAATCAAGTATATGAGGAGAGCGAGCGAGCGTGAGAGAACACCCGTGAGAGA
GACTTGAAACTGCTGTCCTTTAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>Reverse primer walk for NM_133263 unedited
NNGGCGTGCGTCACCGTACTGCAGCGCACTGTGCCGAGTGAGGTGCTTATGTAGTTCTGT
ACAACTTCGGCTCTGAGACTGCATCATGGGAGCCTTCTTGTCTTGGGTGCTGTCCGCCTT
AACACAGGCCGTTGACTTTTAGATCTGAGGCCTGCCTGGCGCCAGGCGGTCCCTTCCTTC
TGGGTGTCAGAGCTTGATGTTGGGTAGGATGTGGCCAGGAGGAGCTTCTGCAGCAGTGAG
AGCTCGTCCACCTCAGGGGCTGGGGCCGAGGGCTTCTCCGGGGCAGGGCTGGGGGGTGCA
GATGAGGGGGCAGGCGAAGCTGAGGTGCATGATAGAGCGTCTCCACCATCCAGGGCTGGG
AAGGCAGCCAGACCCACGTCATCTTCAGGGATGTCATCCAGGGTCTTGGTGAGCTCTGCC
AGGAGGGCCTCATTCTCACTGTCAATCTGGAAGAGCTCGGAGTCATCGGGGCTGTACTGG
TTGGGTTCAGTCTCTGAGTTCTCTGGGCACCACTGCAGCTCCCCAAAGCAGGTGGCCGAG
TCAAAGTCGCTGGCATCCAGCTGGGAGAGGTCAAGTTCTGGAAAGTCAGCATAGAGTTGC
TCCTCCCCGGACCCTCCACCCTGCGTGTCAGCGAGATAGTTGAGGAAGAAAGAGGAGAGC
TCTTCGTCCAGCAGCGCGCCGCAGTCGTTCCCCGCCATCTTCCAGCCGCGGCTGCAGCGT
GCGGCGGAGTCAACGCCGAGCCGGCCCGGNGGGGAGGGAGCCAGCGAGCGACCAAGGGAG
GAAGGAGGAGGGAGTGAGGCCCGCGGGGAGCCGAAAGGCGNACCTCGACCCCCCGCTGCC
GCAGGGCCGCTAGCTGCNGGGGCCGGGCCGCGCGCCCGCGGGAGCCGGGG

**3' Read Nucleotide Sequence:**

```
>OriGene 3' read for NM_133263 unedited
AAACCTGGCAGCTTCTGGCAAGCTTGGGNAGCTGGCTGGGCTGTGGCATGTCGCAGGTGG
GACAGGAGCTCACTTCGCTCTGGGTGCTTCTTTGGCAGCTTGTGGGCAGCCCCTGGGGTG
GCCTTGAGTGAGAGGCCCTCAGGGGAGGGGAGGCTGAGAGCTATTTCTTTGCCTAGACTA
TGCTTGATGTCTGGTTTGAAGGGATCCTCCTCTGTGGGCTTGTACGGTGGTGTGGTGGGT
GGGGTGAGTCCTGCTGTGCCACAGAGCTCCACTGTCAAGGTCTGCTCAAAGCTCTTCTTG
CCAAAAGTTGGGTCGCTTTGTGACAAGGCCAGCATGAGGCACCTGGGAGAGTCTCTGGGA
GGGAGCTGCGGGCAGCTGGGGTCCTCATCCATGTCCCCACACCCACTCTCACAGGGGCTC
TCCAGGGCAGGGATCTGGGGTCCCCGTAGGAGCTGCTGGTCTTGGCCACTGTCCTCGTCC
GTGGGGCTGCCCAGCTCCCGCTCTACGTCGTAGGCCTTGGGAGCCAGGCACAGTGAGGGC
AGAGCACCTTGGGGCTCCGAGGGGACCAGCGGCTCATCTGCAAATGTCAGCCAGGGGCCC
AGCTCAAGGTTCAGTCTCCGAGAACGCCGCACGGNGCACACAGAGCTCTCCAGCTTCCTC
CCCAGCTTCGTCCATGGCAGGCCTCGGCCTGGCCTTTTCCTGCCCCACTCCTCCTCCTCC
TCTTTTTCTTCTCCTCTTCCTCCCTCTCTTCTTCCTCGTCTTCCTCCTCCTGCTGCTGCA
GTCTGGCAGGCCGGGCGGACTCCCTTTTCACCTCCAGCCGCAGTGGGCGCAAGCTTGGTC
TGGGCCCCGTGCTCCTGGGTGAAGCTGCGATCCTTACCTCCTCCACCCGAGACCGGCGAA
CCAC
```

**Restriction Sites:** Please inquire

**ACCN:** NM_133263

**Insert Size:** 3500 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

**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_133263.2, NP_573570.2

**RefSeq Size:** 3277 bp

**RefSeq ORF:** 3072 bp

**Locus ID:** 133522

**UniProt ID:** Q86YN6

**Cytogenetics:** 5q32

**Protein Families:** Druggable Genome, Transcription Factors

**Gene Summary:** The protein encoded by this gene stimulates the activity of several transcription factors and nuclear receptors, including estrogen receptor alpha, nuclear respiratory factor 1, and glucocorticoid receptor. The encoded protein may be involved in fat oxidation, non-oxidative glucose metabolism, and the regulation of energy expenditure. This protein is downregulated in prediabetic and type 2 diabetes mellitus patients. Certain allelic variations in this gene increase the risk of the development of obesity. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2010]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). 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.