

## Product datasheet for **SC331135**

### Insulin (INS) (NM\_001185098) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Insulin (INS) (NM\_001185098) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Insulin  
**Synonyms:** IDDM; IDDM1; IDDM2; ILPR; IRDN; MODY10; PNDM4  
**Vector:** pCMV6-Entry (PS100001)  
**Fully Sequenced ORF:** >SC331135 representing NM\_001185098.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
ATGGCCCTGTGGATGCGCCTCCTGCCCTGCTGGCGCTGCTGGCCCTCTGGGGACCTGACCCAGCCGCA  
GCCTTTGTGAACCAACACCTGTGCGGCTCACACCTGGTGAAGCTCTCTACCTAGTGTGCGGGGAACGA  
GGCTTCTTCTACACCCAAGACCCGCCGGGAGGCAGAGGACCTGCAGGTGGGGCAGGTGGAGCTGGGC  
GGGGGCCCTGGTGCAGGCAGCCTGCAGCCCTTGGCCCTGGAGGGTCCCTGCAGAAGCGTGGCATTGTG  
GAACAATGCTGTACCAGCATCTGCTCCCTACCAGCTGGAGAACTACTGCAACTAG
```

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001185098

**Insert Size:** 333 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).

**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\\_001185098.1](#)



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RefSeq Size:	648 bp
RefSeq ORF:	333 bp
Locus ID:	3630
UniProt ID:	<a href="#">P01308</a>
Cytogenetics:	11p15.5
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein
Protein Pathways:	Insulin signaling pathway, Maturity onset diabetes of the young, mTOR signaling pathway, Oocyte meiosis, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Regulation of autophagy, Type I diabetes mellitus, Type II diabetes mellitus
MW:	12 kDa
Gene Summary:	<p>This gene encodes insulin, a peptide hormone that plays a vital role in the regulation of carbohydrate and lipid metabolism. After removal of the precursor signal peptide, proinsulin is post-translationally cleaved into three peptides: the B chain and A chain peptides, which are covalently linked via two disulfide bonds to form insulin, and C-peptide. Binding of insulin to the insulin receptor (INSR) stimulates glucose uptake. A multitude of mutant alleles with phenotypic effects have been identified, including insulin-dependent diabetes mellitus, permanent neonatal diabetes diabetes mellitus, maturity-onset diabetes of the young type 10 and hyperproinsulinemia. There is a read-through gene, INS-IGF2, which overlaps with this gene at the 5' region and with the IGF2 gene at the 3' region. [provided by RefSeq, May 2020]</p> <p>Transcript Variant: This variant (3) differs in the 5' UTR, compared to variant 1. All variants encode the same protein. 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.</p>