

## Product datasheet for **MG226645**

### Ins2 (NM\_008387) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ins2 (NM\_008387) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Ins2  
**Synonyms:** AA986540; In; Ins-2; InsII; Mod; Mody; Mody4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG226645 representing NM\_008387  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCCCTGTGGATGCGCTTCTGCCCTGCTGGCCCTGCTCTTCTCTGGGAGTCCCACCCACCCAGG  
 CTTTTGTCAAGCAGCACCTTTGTGGTCCACCTGGTGGAGGCTCTACCTGGTGTGTGGGAGCGTGG  
 CTTCTTACACCCATGTCCCGCGTGAAGTGGAGGACCCACAAGTGGCACAAGTGGAGCTGGGTGGA  
 GGCCCGGAGCAGGTGACCTTACAGCTTGGCACTGGAGGTGGCCAGCAGAAGCGTGGCATTGTAGATC  
 AGTGTGCACCAGCATCTGCTCCCTTACCAGCTGGAGAAGTACTGCAAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG226645 representing NM\_008387  
 Red=Cloning site Green=Tags(s)

MALWMRFLPLLALLFLWESHPTQAFVKQHLCGSHLVEALYLVCGERGFFYTPMSRREVDPQVAQLELGG  
 GPGAGDLQTLALEVAQQKRGIVDQCCTSICSLYQLENYCN

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_008387

**ORF Size:** 330 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:**

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\\_008387.5](#), [NP\\_032413.1](#)

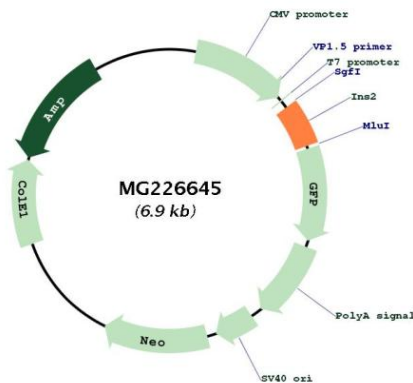
**RefSeq Size:** 467 bp

**RefSeq ORF:** 333 bp

**Locus ID:** 16334  
**UniProt ID:** [P01326](#)  
**Cytogenetics:** 7 88.0 cM  
**Gene Summary:**

This gene encodes insulin, a peptide hormone that plays a vital role in the regulation of carbohydrate and lipid metabolism. The encoded precursor protein undergoes proteolytic cleavage to produce a disulfide-linked heterodimeric functional protein that is stored in secretory granules. An increase in blood glucose levels, among others, induces the release of insulin from the secretory granules. Mice deficient in the functional hormone encoded by this gene develop diabetes mellitus. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015]

### Product images:



Circular map for MG226645