

Product datasheet for **RG202701**

Insulin (INS) (NM_000207) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Insulin (INS) (NM_000207) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Insulin
Synonyms: IDDM; IDDM1; IDDM2; ILPR; IRDN; MODY10; PNDM4
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG202701 representing NM_000207
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCTGTGGATGCGCCTCCTGCCCTGCTGGCGCTGCTGGCCCTCTGGGGACCTGACCCAGCCGAG
CCTTTGTGAACCAACACCTGTGCGGCTCACACCTGGTGAAGCTCTCTACCTAGTGTGCGGGGAACGAGG
CTTCTTACACACCCAAGACCCCGGGAGGCAGAGGACCTGCAGGTGGGGCAGGTGGAGCTGGGCGGG
GGCCCTGGTGCAGGCAGCCTGCAGCCCTTGGCCCTGGAGGGTCCCTGCAGAAGCGTGGCATTGTGGAAC
AATGCTGTACCAGCATCTGCTCCCTCTACCAGCTGGAGAATACTGCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202701 representing NM_000207
Red=Cloning site Green=Tags(s)
MALWMRLLPLLALLLWGPDPAAAFVNQHLCGSHLVEALYLVCGERGFFYTPKTRREAEDLQVGGQVELGG
GPGAGSLQPLALEGSLQKRGIVEQCCTSICSLYQLENYCN

TRTRPLE - GFP Tag - V

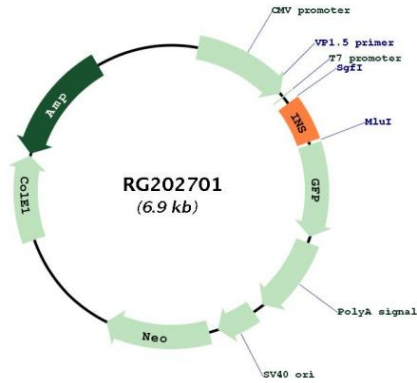
Restriction Sites: Sgfl-MluI



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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_000207.3
RefSeq Size:	450 bp
RefSeq ORF:	333 bp
Locus ID:	3630
UniProt ID:	P01308
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
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>

Product images:



Circular map for RG202701