

## Product datasheet for **RG228911**

### IDE (NM\_001165946) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IDE (NM_001165946) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IDE
Synonyms:	INSULYSIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG228911 representing NM_001165946 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGGTACCGGCTAGCGTGGCTTCTGCACCCGCACTGCCAGCACCTCCGCTCAGTCTCGGCGCC  
GCCTGCCGCTCCGGAGCGCTGTGTGGTTTCAAAAAAAGACTTACAGCAAAATGAATAATCCAGCCAT  
CAAGAGAATAGGAAATCACATTACCAAGTCTCCTGAAGACAAGCGAGAATATCGAGGGCTAGAGCTGGCC  
AATGGTATCAAAGTACTTCTTATCAGTGATCCCACCACGGATAAGTCATCAGCAGCACTTGATGTGCACA  
TAGGTTTATTGTCGGATCCTCAAATATTGCTGGCTTAAGTCATTTTTGTGAACATATGCTTTTTTGGG  
AACAAAGAAATACCTAAAGAAAATGAATACAGCCAGTTTCTCAGTGAGCATGCAGGAAGTTCAAATGCC  
TTTACTAGTGGAGAGCATACCAATTACTATTTTGTGTTTCTCATGAACACCTAGAAGGTGCCCTAGACA  
GGTTTGCACAGTTTTTCTGTGCCCTTGTTCGATGAAAGTTGCAAAGACAGAGAGGTGAATGCAGTTGA  
TTCAGAACATGAGAAGATGTGATGAATGATGCCTGGAGACTCTTCAATTGGAAAAAGCTACAGGGAAAT  
CCTAAACACCCCTTCAGTAAATTTGGGACAGGTAACAAATATACTCTGGAGACTAGACCAAAACCAAGAAG  
GCATTGATGTAAGACAAGAGCTACTGAAATTCATTCTGCTTACTATTCACTCAACTTAATGGCTGTTTG  
TGTTTTAGGTCGAGAATCTTTAGATGACTTGACTAATCTGGTGGTAAAGTATTTTTCTGAAGTAGAGAAC  
AAAAATGTTCCATTGCCAGAATTTCTGAACACCCCTTTCCAAGAAGAACATCTTAAACAACCTTACAAAA  
TAGTACCCATTAAGATATTAGGAATCTCTATGTGACATTTCCCATACCTGACCTTCAGAAATACTACAA  
ATCAAACTCCTGGTCATTATCTTGGTCATCTCATTGGGCATGAAGTCTGGAAGTCTGTTATCAGAACTT  
AAGTCAAAGGGCTGGTTAATACTCTTGTGGTGGCAGAAGGAAGGAGCCCGAGTTTTATGTTTTTTA  
TCATTAATGTGGACTTGACCGAGGAAGGATTATTACATGTTGAAGATATAATTTGCACATGTTTCAATA  
CATTGAGAAGTTACGTGCAGAAGGACCTCAAGAATGGGTTTTCCAAGAGTGAAGGACTTGAATGCTGTT  
GCTTTTAGGTTTAAAGACAAAGAGAGGCCACGGGGCTATACATCTAAGATTGCAGGAATATTGCATTATT  
ATCCCCTAGAAGAGGTGCTCACAGCGGAATATTTACTGGAAGAATTTAGACCTGACTTAATAGAGATGGT  
TCTCGATAAACTCAGACCAGAAAATGTCCGGGTGCCATAGTTTCTAAATCTTTGAAGGAAAACTGAT



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CGCACAGAAGAGTGGTATGGAACCCAGTACAAACAAGAAGCTATACCGGATGAAGTCATCAAGAAATGGC  
 AAAATGCTGACCTGAATGGGAAATTTAACTTCCTACAAAGAATGAATTTATTCCTACGAATTTTGAGAT  
 TTTACCCTTAGAAAAAGAGGCGACACCATACCTGCTCTTATTAAGGATACAGCTATGAGCAAACCTTGG  
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 TGCATATGCAGCAGAGCTAGCAGGCTTGAGCTATGATCTCCAAAATACCATCTATGGGATGTATCTTTCA  
 GTGAAAGGTTACAATGACAAGCAGCCAATTTTACTAAAGAAGATTATTGAGAAAAATGGCTACCTTTGAGA  
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 AAAGAAGCTCTGGATGATGTAACCTTCCTCGCCTTAAGGCCTTCATACCTCAGCTCCTGTCACGGCTGC  
 ACATTGAAGCCCTTCTCCATGGAACAATAACAAAGCAGGCTGCATTAGGAATTATGCAGATGGTTGAAGA  
 CACCCTCATTGAACATGCTCATACCAAACCTCTCCTTCCAAGTCAGCTGGTTCCGATAGAGAAGTTCAG  
 CTCCTGACAGAGGATGGTTTGTATCAGCAGAGAAATGAAGTTCACAATAACTGTGGCATCGAGATAT  
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 AATGGCATAACAGGCTTGAGATTCATCCAGTCAGAAAAGCCACCTCACTACCTAGAAAAGCAGAGTGG  
 AAGCTTTCTTAATTACCATGAAAAGTCCATAGAGGACATGACAGAAGAGGCCTTCCAAAAACACATTCA  
 GGCATTAGCAATTCGTCGACTAGACAAACAAAGAAGCTATCTGCTGAGTGTGCTAAACTGCGGGAGAA  
 ATCATCTCCAGCAATATAATTTTGACAGAGATAACACTGAGGTTGCATATTTAAAGACACTTACCAAGG  
 AAGATATCATCAAATCTACAAGGAAATGTTGGCAGTAGATGCTCCAAGGAGACATAAGGTATCCGTCCA  
 TGTTCTTGCCAGGAAATGGATTCTTGTCTGTTGTTGGAGAGTCCCATGTCAAATGACATAAATTTG  
 TCAAGAACCAGCCTTGCCACAACCTGAAGTGATTGAGAATGACCGAATTCAAGCGTGGTCTGCCAC  
 TGTTCCCTTGTGAAACCACATATTAACCTTCATGGCTGCAAAACTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG228911 representing NM\_001165946  
 Red=Cloning site Green=Tags(s)

MRYRLAWLLHPALPSTFRSVL GARLPPPERLCGFQKKTYSKMNNPAIKRIGNHITKSPEDKREYRLELA  
 NGIKVLLISDPTTDKSSAALDVHIGSLSDPPNIAGLSHFCEHMLFLGTKKYPKENEYSQFLSEHAGSSNA  
 FTSGEHTNYYFDVSHHELEGALDRFAQFFLCPLFDESCKDREVNVDSEHEKNVMNDARLWFQLEKATGN  
 PKHPFSKFGTGNKYTLERPNQEGIDVRQELLFHSAAYSSNLMAVCVLGRESLDDLNLVVKLFSEVEN  
 KNVPLPEFPEHPFQEEHLKQLYKIVPIKDIRNLVYTFPIPDLQKYYKSNPGHYLGHLIGHEGPGSLLSEL  
 KSKGWVNTLVGGQKEGARGFMFFIINVDLTEGLLHVEDIILHMFQYIQKLRAGPQEWVFQECKDLNAV  
 AFRFKDKERPRGYTSKIAGILHYYPLEEVLTAEYLLEEFRPDLIEMVLDKLRPENVRVAIVSKSFEGKTD  
 RTEEWYGTQYKQEAIPDEVIKKQNADLNGKFKLPTKNEFIPTNFEILPLEKEATPYPALIKDTAMSKLW  
 FKQDDKFFLPKACLNFEEFSPFAYVDPLHCNMAYLYLELLKDSLNEYAYAAELAGLSYDLQNTIYGYMS  
 VKGYNDKQPIILLKKIIEKMATFEIDEKRFEIIEKAYMRSLNFRAEQPHQHAMYLRLLMTEVAWTKDEL  
 KEALDDVTLPRLKAFIPQLLSRLHIEALLHGNITKQAALGIMQMVEDTLIEHAHTKPLLPSQLVRYREVQ  
 LPDRGWFVYQQRNEVHNCGIEIYYQTMQSTENMFLELFCQIISEPCFNTLRTKEQLGYIVFSGPRRA  
 NGIQGLRFIIQSEKPPHYLESRVEAFLITMEKSIEDMTEEAQKHIQALAIRRLDKPKLSAECAYWGE  
 IISQQYNFDRDNTEVAYLKTLTKEDIKIFYKEMLAVDAPRRHKVSVHVLAREMDS CPVVGFEPCQNDINL  
 SQAPALPQPEVIQNMTEFKRGLPLFPLVKPHINFMAAKL

TRTRPLE – GFP Tag – V

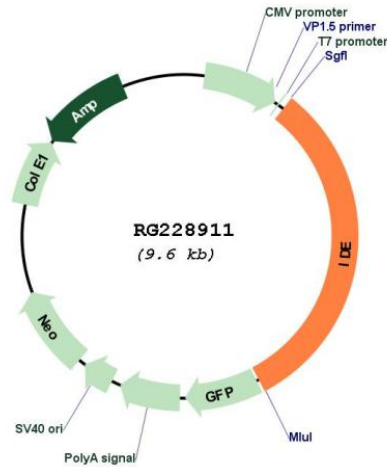
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001165946

ORF Size: 3060 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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001165946.1</a> , <a href="#">NP_001159418.1</a>
<b>RefSeq Size:</b>	4480 bp
<b>RefSeq ORF:</b>	1395 bp
<b>Locus ID:</b>	3416
<b>UniProt ID:</b>	<a href="#">P14735</a>
<b>Cytogenetics:</b>	10q23.33
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Alzheimer's disease
<b>Gene Summary:</b>	This gene encodes a zinc metallopeptidase that degrades intracellular insulin, and thereby terminates insulins activity, as well as participating in intercellular peptide signalling by degrading diverse peptides such as glucagon, amylin, bradykinin, and kallidin. The preferential affinity of this enzyme for insulin results in insulin-mediated inhibition of the degradation of other peptides such as beta-amyloid. Deficiencies in this protein's function are associated with Alzheimer's disease and type 2 diabetes mellitus but mutations in this gene have not been shown to be causitive for these diseases. This protein localizes primarily to the cytoplasm but in some cell types localizes to the extracellular space, cell membrane, peroxisome, and mitochondrion. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript variants have been described but have not been experimentally verified.[provided by RefSeq, Sep 2009]