

Product datasheet for **RG219403**

INSIG1 (NM_198336) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: INSIG1 (NM_198336) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: INSIG1
Synonyms: CL6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG219403 representing NM_198336
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCAGATTGCACGACCACTTCTGGAGCTGCTCCTGTGCGCACAGCGGAGGCCGCCGAGGCCCCCGC
 GAGCCAGCGCCGCGGGGCTGGCGCCAAGGTTGGGGAGATGATCAACGTTTCCGTGTCCGGGCCCTCCCT
 GCTGGCGGCCACGGTCCCCGGACGCTGACCCCGCGCCAGGGGCCGAGTGTGCGATGAGCGGCCCC
 GAGCCCGCAGCCCTACCCCAACCTGGCATCATCGCCTGTTGCAGAGGAGCCTCGTCTCTTCTCGG
 TTGGGGTGGTCTAGCCCTGGTCTCAACCTGCTGCAGATCCAGAGGAATGCACTCTCTCCCCGAGGA
 GGTGATCGCCACCATCTTTTCTCCGCCTGGTGGTCCCTCCCTGCTGCGGGACAGCAGCTGCTGTTGTT
 GGCTACTGTACCCTGTATCGACAGTCACTCGGAGAACCCACAAATTAAGAGAGAATGGGCCAGTG
 TCATGCGTGCATAGCAGTTTTTGTGGCATTAAACCAGCCAGTGTAAATTTGGATTTTGCCAATAATGT
 CCAGCTGTCTTGACTTTAGCAGCCCTATCTTTGGGCCTTTGGTGGACATTTGATCGTCCAGAAGTGGC
 CTTGGGCTGGGATCACCATAGCTTTTCTAGCTACGCTGATCACGCAGTTTCTCGTGATAATGGTGTCT
 ATCAGTATACATCCCCAGATTTCTCTATATTCGTTCTTGGCTCCCTGTATATTTTCTCAGGAGGCGT
 CACGGTGGGGAACATAGGACGACAGTTAGCTATGCTGATACCTTCTGTGAGGAGTTGAATTTGAAGACC
 ACTTGGCTGTTTCACAAAACCAGAAGTAATTACAGGGTGTCTGAAAAGCCCCATAGTGATTGAGTCTT
 CAAAACCACCGATTCTGAGAGCAAGGAAGATTTTGGAAAGAAATCTGACTGTGGATTATGACAAAAGATTA
 TCTTTTTTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_198336

ORF Size: 990 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_198336.1](#), [NP_938150.1](#)

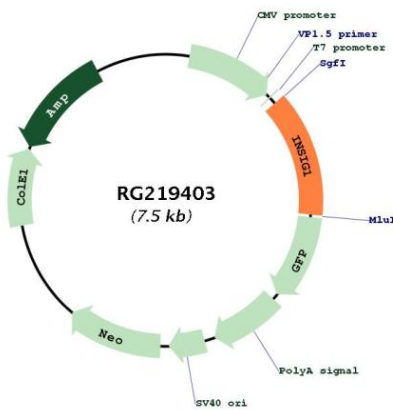
RefSeq Size: 3049 bp

RefSeq ORF: 537 bp

Locus ID: 3638

UniProt ID: [O15503](#)
Cytogenetics: 7q36.3
Protein Families: Druggable Genome, Transmembrane
Gene Summary: This gene encodes an endoplasmic reticulum membrane protein that regulates cholesterol metabolism, lipogenesis, and glucose homeostasis. The encoded protein has six transmembrane helices which contain an effector protein binding site. It binds the sterol-sensing domains of sterol regulatory element-binding protein (SREBP) cleavage-activating protein (SCAP) and 3-hydroxy-3-methylglutaryl-coenzyme A reductase (HMG-CoA reductase), and is essential for the sterol-mediated trafficking of these two proteins. It promotes the endoplasmic reticulum retention of SCAP and the ubiquitin-mediated degradation of HMG-CoA reductase. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2016]

Product images:



Circular map for RG219403