

Product datasheet for **RC200312**

INSIG1 (NM_005542) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	INSIG1 (NM_005542) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	INSIG1
Synonyms:	CL6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200312 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCAGATTGCACGACCACTTCTGGAGCTGCTCCTGTGCGCACAGCGCGAGGCGCCGAGGCCCCCGC
GAGCCAGCGCCGCGGGCTGGCGCCAAGGTTGGGGAGATGATCAACGTTTCCGTGTCGGGGCCCTCCCT
GCTGGCGGCCACGGTGCCCGGACGCTGACCCCGCGCCAGGGCCGCGAGTGTGCGATGAGCGGCCCC
GAGCCCGCAGCCCTACCCCAACCTGGCATCATCGCCTGTTGCAGAGGAGCCTCGTGCTCTTCTCGG
TTGGGGTGGTCTAGCCCTGGTGTCAACCTGCTGCAGATCCAGAGGAATGCACTCTTCCCCGAGGA
GGTGATGCCACCATCTTTTCTCCGCCTGGTGGTCCCTCCCTGCTGCGGGACAGCAGCTGCTGTTGTT
GGCCTACTGTACCCTGTATCGACAGTCACCTCGGAGAACCCACAAATTAAGAGAGAATGGGCCAGTG
TCATGCGCTGCATAGCAGTTTTTGTGGCATTAAACCACGCCAGTGCTAAATTTGGATTTTGCCAATAATGT
CCAGCTGTCTTGACTTTAGCAGCCCTATCTTTGGCCTTTGGTGGACATTTGATCGTCCAGAAGTGGC
CTTGGGCTGGGGATCACCATAGCTTTTCTAGCTACGCTGATCACGCAGTTTCTCGTGATAATGGTGCT
ATCAGTATACATCCCAGATTTCTCTATATTCGTTCTTGGCTCCCTTGATATTTTTCTCAGGAGGCGT
CACGGTGGGGAACATAGGACGACAGTTAGCTATGGGTGTTCTGAAAAGCCCCATAGTGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200312 protein sequence
 Red=Cloning site Green=Tags(s)

MPRLHDFWSCSCAHSARRRGPPRASAAGLAAKVGEMINVSVSGPSLLAAHGAPDADPAPRGRSAAMSGP
 EPGSPYPNTWHRLLQRSLVLFVSGVVLALVLNLLQIQRNVTLPFEEVIATIFSSAWVPPCCGTAADV
 GLLYPCIDSHLGEPHKFKREWASVMRCIAVAVGINHASAKLDFANNVQLSLTLAALSLGLWTFDRSRSG
 LGLGITIAFLATLITQFLVYNGVYQYTSPDFLYIRSWLPCIFFSGGVTVGNIGRQLAMGVPEKPHSD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6213_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_005542

ORF Size: 831 bp

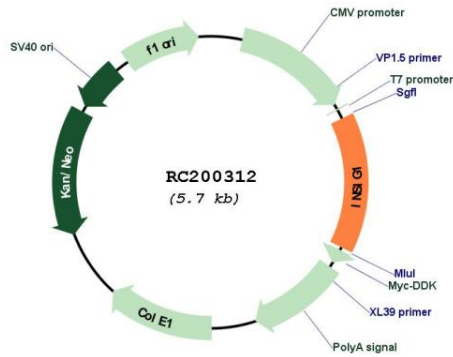
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

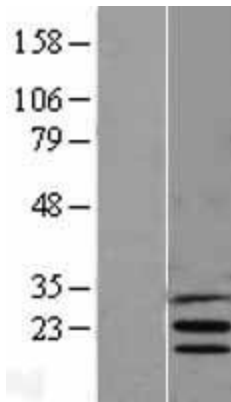
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_005542.6
RefSeq Size:	3020 bp
RefSeq ORF:	834 bp
Locus ID:	3638
UniProt ID:	O15503
Cytogenetics:	7q36.3
Protein Families:	Druggable Genome, Transmembrane
MW:	30 kDa
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 RC200312



Western blot validation of overexpression lysate (Cat# [LY417235]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200312 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).