

## Product datasheet for SC126509

### IDE (NM\_004969) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IDE (NM_004969) Human Untagged Clone
Tag:	Tag Free
Symbol:	IDE
Synonyms:	INSULYSIN
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC126509 sequence for NM_004969 edited (data generated by NextGen Sequencing)

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ATGCGGTACCGCTAGCGTGGCTTCTGCACCCCGCACTGCCAGCACCTCCGCTCAGTC
CTCGGCGCCCGCTGCCGCTCCGGAGCGCCTGTGTGGTTTCCAAAAAAGACTTACAGC
AAAATGAATAATCCAGCCATCAAGAGAATAGGAAATCACATTACCAAGTCTCCTGAAGAC
AAGCGAGAATATCGAGGGCTAGAGCTGGCCAATGGTATCAAAGTACTTCTATCAGTGAT
CCCACCACGGATAAGTCATCAGCAGCACTTGATGTGCACATAGGTTCAATGTCGGATCCT
CCAAATATTGCTGGCTTAAGTCATTTTTGTGAACATATGCTTTTTTGGGAACAAAGAAA
TACCCTAAAGAAAATGAATACAGCCAGTTTCTCAGTGAGCATGCAGGAAGTTCAAATGCC
TTTACTAGTGGAGAGCATAACCAATTAATTTTGTGTTTCTCATGAACACCTAGAAGGT
GCCCTAGACAGGTTTGCACAGTTTTTCTGTGCCCTTGTTCGATGAAAGTTGCAAGAC
AGAGAGGTGAATGCAGTTGATTCAGAACATGAGAAGAATGTGATGAATGATGCCTGGAGA
CTTTTTCAATTGGAAAAAGCTACAGGGAATCCTAAACACCCCTTCAAGTAAATTTGGGACA
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GTTTCTAAATCTTTGAAGGAAAACTGATCGCACAGAAGAGTGGTATGGAACCCAGTAC

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AAACAAGAAGCTATACCGGATGAAGTCATCAAGAAATGGCAAATGCTGACCTGAATGGG  
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 GAAAAAGAGGCGACACCATACCCGTCTTATTAAGGATACAGCTATGAGCAAACCTTGG  
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 GATAACACTGAGGTTGCATATTTAAAGACACTTACCAAGGAAGATATCATCAAATCTAC  
 AAGGAAATGTTGGCAGTAGATGCTCCAAGGAGACATAAGGTATCCGTCCATGTTCTTGCC  
 AGGGAAATGGATTCTTGTCTGTTGTTGGAGAGTTCATGTCAAATGACATAAATTTG  
 TCAACAAGCACCAGCCTTGCCACAACCTGAAGTATTGAGAACATGACCGAATTCAAGCGT  
 GGTCTGCCACTGTTTCCCTTGTGAAACCACATATTAACCTCATGGCTGCAAAACTCTGA

Clone variation with respect to NM\_004969.3

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004969 unedited  
 CCCATTACCCGCCCCTTGNCGCTTTGGCGGTAGGCGGTACGGTGGGAGTCTATATA  
 AGCAGAGTTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGCC  
 GCGAATTCGCGACGAGGTGCAAGCGCAAGCAGGAAGCGTTTGGGTTGATCCCGGCGACTG  
 CGCTGGCTAATGCGGTACCGGCTAGCGTGGCTTCTGCACCCGCACTGCCAGCACCTTC  
 CGCTCAGTCTCGGCGCCCGCTGCCGCTCCGGAGCGCCTGTGTGGTTTCAAAAAAAG  
 ACTTACAGCAAAATGAATAATCCAGCCATCAAGAGAATAGGAAATCACATTACCAAGTCT  
 CCTGAAGACAAGCGAGAATATCGAGGGCTAGAGCTGGCCAATGGTATCAAAGTACTTCTT  
 ATCAGTGATCCCACCACGGATAAGTCATCAGCAGCACTTGATGTGCACATAGGTTATTG  
 TCGGATCTCAAATATTGCTGGCTTAAGTCATTTTTGTGAACATATGCTTTTTTTGGGA  
 ACAAAAGAAATACCTAAAGAAAATGAATACAGCCAGTTTCTCAGTGAGCATGCAGGAAGT  
 TCAAAATGCCTTTACTAGTGGAGAGCATACCAATTAATTTTGTGATGTTTCTCATGAACAC  
 CTAGAAGTGGCCTAGACAGGTTTGACAGTNTTTCTGTGCCCTTGTTCGATGAAAGT  
 TGCAAAGACAGAGAGGTGAATGCAGTTGATTGAGACATGAGAAGATGTGATGAATGATGC  
 CTGGAGACTCTNTCAATTGGAAAAGCTACAGGGATCCTAAACACCCTTTTCAGTAATGGG  
 ACAGGTACAAAATACTCTGGAGACTAGACCAAACCAGAAGCATTGATGTAGACAGAAGC  
 TACTGAATCCATTCTGCTTACTATTCATNCACTTATGGCTG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_004969

**Insert Size:**

3600 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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_004969.1</a> , <a href="#">NP_004960.1</a>
<b>RefSeq Size:</b>	3279 bp
<b>RefSeq ORF:</b>	3060 bp
<b>Locus ID:</b>	3416
<b>UniProt ID:</b>	<a href="#">P14735</a>
<b>Cytogenetics:</b>	10q23.33
<b>Domains:</b>	Peptidase_M16, Peptidase_M16_C
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Alzheimer's disease
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) encodes the longest protein (isoform 1). Alternative translation initiation of this transcript variant produces an isoform that lacks 41 aa from the N-terminus and, purportedly, lacks an N-terminal mitochondrial targeting sequence.</p>