

## Product datasheet for RC220700

### IDE (NM\_004969) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IDE (NM_004969) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IDE
Synonyms:	INSULYSIN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220700 representing NM_004969 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGGTACCGGCTAGCGTGGCTTCTGCACCCGCACTGCCAGCACCTCCGCTCAGTCTCGGCGCC  
GCCTGCCGCTCCGGAGCGCTGTGTGGTTTCCAAAAAAGACTTACAGCAAAATGAATAATCCAGCCAT  
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CGCACAGAAGAGTGGTATGGAACCCAGTACAAACAAGAAGCTATACCGGATGAAGTCATCAAGAAATGGC  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220700 representing NM\_004969  
 Red=Cloning site Green=Tags(s)

MRYRLAWLLHPALPSTFRSVLGARLPPPERLCGFQKKTYSKMNNPAIKRIGNHITKSPEDKREYRGLLELA  
 NGIKVLLISDPTTDKSSAALDVHIGSLSDPPNIAGLSHFCEHMLFLGTTKYPKENEYSQFLSEHAGSSNA  
 FTSGEHTNYYFDVSHHELEGALDRFAQFFLCPLFDESCKDREVNVDSEHEKNVMNDAWRLFQLEKATGN  
 PKHPFSKFGTGNKYTLERPNQEGIDVRQELLFHSAYSSNLMAVCVLRGSLDDLNLVVKLFSEVEN  
 KNVPLPEFPEHPFQEEHLKQLYKIVPIKDIRNLVYTFPIPDLQKYYKSNPGHYLGHIGHEGPGSLLSEL  
 KSKGWVNTLVGGQKEGARGFMFFIINVDLTEEGLLHVEDIILHMFQYIQKLRAGEPQEWVFQECKDLNAV  
 AFRFKDKERPRGYTSKIAGILHYYPLEEVLTAEYLLEEFRPDLIEMVLDKLRPENVRVAIVSKSFEGKTD  
 RTEEWYGTQYKQEAIPDEVIKKQWADLNGKFKLPTKNEFIPTNFEILPLEKEATPYPALIKDTAMSKLW  
 FKQDDKFFLPKACLNFEEFSPFAYVDPLHCNMAYLYLELLKDSLNEYAYAAELAGLSYDLQNTIYGYLS  
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 KEALDDVTLPRLKAFIPQLLSRLHIEALLHGNITKQAALGIMQMVEDTLIEHAHTKPLLPQSLVRYREVQ  
 LPDRGWFVYQQRNEVHNNCGIEIYYQTMQSTSENMFLELFCQIISEPCFNTLRKEQLGYIVFSGPRRA  
 NGIQGLRFIIQSEKPPHYLESRVEAFLITMEKSIEDMTEEFQKHIQALAIRRLDKPKLSAECAYWGE  
 IISQQYNFDRDNTEVAYLTKLTKEDIKFKYKEMLAVDAPRRHKVSVHVLAREMDSCPVVGFEFPCQNDINL  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6167\\_h05.zip](https://cdn.origene.com/chromatograms/mk6167_h05.zip)

**Restriction Sites:**

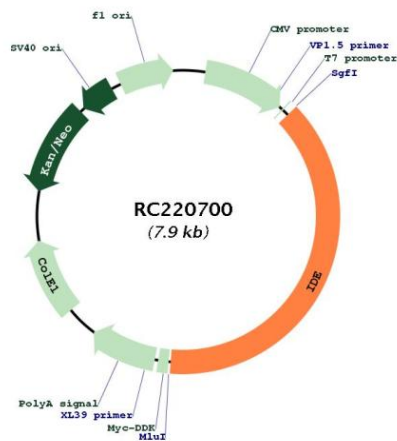
Sgfl-Mlul



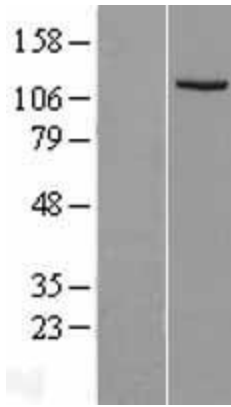
RefSeq ORF:	3060 bp
Locus ID:	3416
UniProt ID:	<a href="#">P14735</a>
Cytogenetics:	10q23.33
Domains:	Peptidase_M16, Peptidase_M16_C
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Alzheimer's disease
MW:	117.8 kDa

**Gene Summary:** This gene encodes a zinc metallopeptidase that degrades intracellular insulin, and thereby terminates insulin's 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 causative 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]

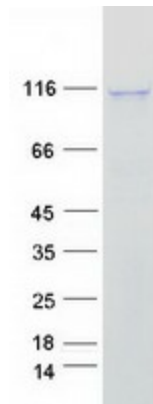
### Product images:



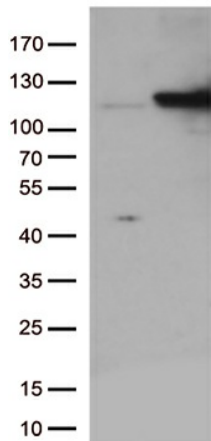
Circular map for RC220700



Western blot validation of overexpression lysate (Cat# [LY401545]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220700 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IDE protein (Cat# [TP320700]). The protein was produced from HEK293T cells transfected with IDE cDNA clone (Cat# RC220700) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY IDE (Cat# RC220700, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-IDE (Cat# [TA811776])(1:500).