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Product datasheet for SC115217

GAD67 (GAD1) (NM_013445) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GAD67 (GAD1) (NM_013445) Human Untagged Clone
Tag:	Tag Free
Symbol:	GAD67
Synonyms:	CPSQ1; DEE89; GAD; SCP
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	`>NCBI ORF sequence for NM_013445, the custom clone sequence may differ by one or more nucleotides`

```
ATGGCGTCTTCGACCCCATCTTCGTCCGCAACCTCCTCGAACGCGGGAGCGGACCCCAATACCACTAACC
TGCGCCCCACAACGTACGATACCTGGTGCGGCGTGGCCCATGGATGCACCAGAAAACTGGGGCTCAAGAT
CTGCGGCTTCTTGCAAAGGACCAACAGCCTGGAAGAGAAGAGTCGCCTTGTGAGTGCCTTCAAGGAGAGG
CAATCCTCCAAGAACCTGCTTTCCTGTGAAAACAGCGACCGGGATGCCCGCTTCCGGCGCACAGAGACTG
ACTTCTCTAATCTGTTTGCTAGAGATCTGCTTCCGGCTAAGAACGGTGAGGAGCAAACCGTGCAATTCCT
CCTGGAAGTGGTGGACATACTCCTCAACTATGTCCGCAAGACATTTGATCGCTCCACCAAGGTGCTGGAC
TTTCATCACCCACACCAGTTGCTGGAAGGCATGGAGGGCTTCAACTTGGAGCTCTCTGACCACCCCGAGT
CCCTGGAGCAGATCCTGGTTGACTGCAGAGACACCTTGAAGTATGGGGTTCGCACAGGTCATCCTCGATT
TTTCAACCAGCTCTCCACTGGATTGGATATTATTGGCCTAGCTGGAGAATGGCTGACATCAACGGCCAAT
ACCAACATGCCATCAGACATGAGGGAGTGTTGGTTGCTACGGTGA
```

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5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_013445 unedited
GGATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCTGATGGCG
TCTTCGACCCCATCTTCGTCCGCAACCTCCTCGAACGCGGGAGCGGACCCCAATACCACT
AACCTGCGCCCCACAACGTACGATACCTGGTGCGGCGTGGCCCATGGATGCACCAGAAAA
CTGGGGCTCAAGATCTGCGGCTTCTTGCAAAGGACCAACAGCCTGGAAGAGAAGAGTCGC
CTTGTGAGTGCCTTCAAGGAGAGGCAATCCTCCAAGAACCTGCTTTCCTGTGAAAACAGC
GACCGGGATGCCCGCTTCCGGCGCACAGAGACTGACTTCTCTAATCTGTTTGCTAGAGAT
CTGCTTCCGGCTAAGAACGGTGAGGAGCAAACCGTGCAATTCCTCCTGGAAGTGGTGGAC
ATACTCCTCAACTATGTCCGCAAGACATTTGATCGCTCCACCAAGGTGCTGGACTTTCAT
CACCCACACCAGTTGCTGGAAGGCATGGAGGGCTTCAACTTGGAGCTCTCTGACCACCCC
GAGTCCCTGGAGCAGATCCTGGTTGACTGCAGAGACACCTTGAAGTATGGGGTTCGCACA
GGTCATCCTCGATTTTTCAACCAGCTCTCCACTGGATTGGATATTATTGGCCTAGCTGGA
GAATGGCTGACATCAACGGCCAATACCAACATGTTTACATATGAAATTGCACCAGTGTTT
TGTCCTCATGGGACANATAACACTTAAGAAGATGAGAGAGATAGTGGGATGGTCAAGTAA
AGATGGTGATGGGATATTTTCTCCTGGGGGCGCCATATNNCACATGTACAGCATCATGGC
TGCTCGCTACAAGTACTTCCCGAAAGTAAGACCAGGGCATGGG
```

Restriction Sites: NotI-NotI

ACCN: NM_013445

Insert Size: 3500 bp

OTI Disclaimer: 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).

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_013445.3, NP_038473.2

RefSeq Size: 1272 bp

RefSeq ORF: 675 bp

Locus ID: 2571

UniProt ID: Q99259

Cytogenetics: 2q31.1

Protein Families: Druggable Genome

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Protein Pathways: Alanine, aspartate and glutamate metabolism, beta-Alanine metabolism, Butanoate metabolism, Metabolic pathways, Taurine and hypotaurine metabolism, Type I diabetes mellitus

Gene Summary: This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantigen and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Deficiency in this enzyme has been shown to lead to pyridoxine dependency with seizures. Alternative splicing of this gene results in two products, the predominant 67-kD form and a less-frequent 25-kD form. [provided by RefSeq, Jul 2008]
Transcript Variant: Transcript variant GAD25 represents a truncated form of the full-length transcript variant GAD67.

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