

Product datasheet for **SC300136**

GAD65 (GAD2) (NM_000818) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GAD65 (GAD2) (NM_000818) Human Untagged Clone
Tag:	Tag Free
Symbol:	GAD65
Synonyms:	GAD65
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC300136 sequence for NM_000818 edited (data generated by NextGen Sequencing)

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ATGGCATCTCCGGGCTCTGGCTTTTGGTCTTTCGGGTCGGAAGATGGCTCTGGGGATTCC
GAGAATCCCGGCACAGCGCAGCCTGGTCCAAGTGGCTCAGAAGTTCACGGGCGGCATC
GGAAACAAACTGTGCGCCTGCTCTACGGAGACCCGAGAAGCCGGCGGAGAGCGCGGG
AGCCAACCCCGCGGGCCGCCCGCCGGAAGCCGCCTGCGCCTGCGACCAGAAGCCCTGC
AGCTGCTCCAAAGTGGATGTCAACTACGGTTTTCTCCATGCAACAGACCTGCTGCCGGCG
TGTGATGGAGAAAAGGCCCACTTTGGCGTTTCTGCAAGATGTTATGAACATTTTACTTCAG
TATGTGGTGAAAAGTTTCGATAGATCAACCAAAGTGATTGATTTCCATTATCCTAATGAG
CTTCTCCAAGAATATAATTGGGAATTGGCAGACCAACCACAAAATTTGGAGGAAATTTTG
ATGCATTGCCAAACAACCTCTAAAATATGCAATTAACAGGGCATCCTAGATACTTCAAT
CAACTTTCTACTGGTTTGGATATGGTTGGATTAGCAGCAGACTGGCTGACATCAACAGCA
AATACTAACATGTTACCTATGAAATTGCTCCAGTATTTGTGCTTTTGAATATGTCACA
CTAAAGAAAATGAGAGAAATCATTGGCTGGCCAGGGGGCTCTGGCGATGGGATATTTTCT
CCCGGTGGCGCCATATCTAACATGTATGCCATGATGATCGCACGCTTTAAGATGTTCCCA
GAAGTCAAGGAGAAAAGGAATGGCTGCTCTCCAGGCTCATTGCCTTCAGTCTGAACAT
AGTCATTTTTCTCTCAAGAAGGGAGCTGCAGCCTTAGGGATTGGAACAGACAGCGTGATT
CTGATTAATGTGATGAGAGAGGGAAAATGATTCCATCTGATCTTGAAAGAAGGATTCTT
GAAGCCAAACAGAAAGGGTTTGTTCCTTTCCTCGTGAGTGCCACAGCTGGAACCACCGTG
TACGGAGCATTTGACCCCTCTTAGCTGTCGCTGACATTTGCAAAAAGTATAAGATCTGG
ATGCATGTGGATGCAGCTTGGGTGGGGATTACTGATGTCCGAAAACACAAGTGGAAA
CTGAGTGGCGTGGAGAGGGCCAACCTCTGTGACGTGGAATCCACACAAGATGATGGGAGTC
CCTTTGCAGTCTCTGCTCTCTCTGGTTAGAGAAGAGGGATTGATGCAGAATTGCAACCAA
ATGCATGCCTCCTACCTCTTTCAGCAAGATAAACATTATGACCTGTCTATGACACTGGA
GACAAGGCCTTACAGTGCAGGACGCCACGTTGATGTTTTTAAACTATGGCTGATGTGGAGG
GCAAAGGGGACTACCGGTTTGAAGCGCATGTTGATAAATGTTTGGAGTTGGCAGAGTAT
TTATACAACATCATAAAAAACCGAGAAGGATATGAGATGGTGTGTTGATGGGAAGCCTCAG
CACACAAATGTCTGCTTCTGGTACATTCCTCCAAGCTTGCCTACTCTGGAAGACAATGAA
GAGAGAATGAGTCGCCTCTCGAAGGTGGCTCCAGTGATTAAGCCAGAATGATGGAGTAT
GGAACCACAATGGTCAGCTACCAACCCTTGGGAGACAAGGTCAATTTCTCCGCATGGTC
ATCTCAAACCCAGCGGCAACTACCAAGACATTGACTTCTGATTGAAGAAATAGAACGC
CTTGGACAAGATTATAA

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Clone variation with respect to NM_000818.2

Restriction Sites: Please inquire
ACCN: NM_000818
Insert Size: 1800 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	It is not a variant.
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.
RefSeq:	NM_000818.1 , NP_000809.1
RefSeq Size:	2457 bp
RefSeq ORF:	1758 bp
Locus ID:	2572
UniProt ID:	Q05329
Cytogenetics:	10p12.1
Protein Families:	Druggable Genome
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 autoantibody and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Alternative splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Oct 2008]

Transcript Variant: This variant (1) represents the longer transcript.