

# **Product datasheet for TP307226**

#### OriGene Technologies, Inc.

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### GAD67 (GAD1) (NM\_000817) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human glutamate decarboxylase 1 (brain, 67kDa) (GAD1), transcript

variant GAD67, 20 µg

Species: Human
Expression Host: HEK293T

**Expression cDNA Clone** >RC207226 protein sequence or AA Sequence: Red=Cloning site Green=Tags(s)

MASSTPSSSATSSNAGADPNTTNLRPTTYDTWCGVAHGCTRKLGLKICGFLQRTNSLEEKSRLVSAFKER QSSKNLLSCENSDRDARFRRTETDFSNLFARDLLPAKNGEEQTVQFLLEVVDILLNYVRKTFDRSTKVLD FHHPHQLLEGMEGFNLELSDHPESLEQILVDCRDTLKYGVRTGHPRFFNQLSTGLDIIGLAGEWLTSTAN TNMFTYEIAPVFVLMEQITLKKMREIVGWSSKDGDGIFSPGGAISNMYSIMAARYKYFPEVKTKGMAAVP KLVLFTSEQSRYSIKKAGAALGFGTDNVILIKCNERGEIIPADFEAKILEAKQKGYVPFYVNATAGTTVY GAFDPIQEIADICEKYNLWLHVDAAWGGGLLMSRKHRHKLNGIERANSVTWNPHKMMGVLLQCSAILVK

KGILQGCNQMCAGYLFQPDKQYDVSYDTGDKAIQCGRHVDIFKFWLMWKAKGTVGFENQINKCLELAEY

L

YAKIKNREEFEMVFNGEPEHTNVCFWYIPQSLRGVPDSPQRREKLHKVAPKIKALMMESGTTMVGYQPQ

G

DKANFFRMVISNPAATQSDIDFLIEEIERLGQDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK
Predicted MW: 66.7 kDa

**Concentration:** >0.05 μg/μL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.



RefSeq ORF:

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For testing in cell culture applications, please filter before use. Note that you may experience Note:

some loss of protein during the filtration process.

Store at -80°C. Storage:

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 000808

Locus ID: 2571 **UniProt ID:** Q99259 3488 RefSeq Size: Cytogenetics: 2q31.1

Synonyms: CPSQ1; DEE89; GAD; SCP

1782

**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]

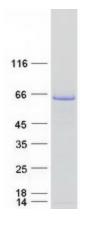
**Protein Families:** Druggable Genome

**Protein Pathways:** Alanine, aspartate and glutamate metabolism, beta-Alanine metabolism, Butanoate

metabolism, Metabolic pathways, Taurine and hypotaurine metabolism, Type I diabetes

mellitus

## **Product images:**



Coomassie blue staining of purified GAD1 protein (Cat# TP307226). The protein was produced from HEK293T cells transfected with GAD1 cDNA clone (Cat# [RC207226]) using MegaTran 2.0 (Cat#

[TT210002]).