

Recombinant Human GAD1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. GAD1-2992H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GAD1 MS Standard C13 and N15-labeled recombinant protein (NP_000808) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	66.9 kDa
AA Sequence	MASSTPSSSATSSNAGADPNTTTLRPTTYDTWCGVAHGCTRKLGLKICGFLQRTNS LEEKSRLLVSAFKERQSSKNLLSCENS DRDARFRRTETDFSNL FARDLLPAKNGEEQ TVQFLLEVVDILLNYVRKTFDRSTKVLDFHHPHQLLLEGMEGFNLELSDPESLEQILV DCRDTLKYGVRTGHPFRFFNQLSTGLDIIGLAGEWLTSTANTNMFTYEIAPVFLMEQI

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TLKKMREIVGWSSKDGDFGIFSPGGAISNMYSIMAARYKYFPEVKTGMAAVPKLVLF
 TSEQSRYSIKKAGAALGFGTDNVILIKNERGEIIPADFEAKILEAKQKGYVPFYVNAT
 AGTTVYGAFDPIQEIADICEKYNLWLHVDAAWGGGLLSRKHHRHKLNGIERANSVT
 WNPHKMMGVLLQCSAILVKEKGILQGCNQMCGYLFQDPKQYDVSYDTGDKAIQC
 GRHVDIFKFWLMWKAKGTVGFENQINKCLELAEYLYAKIKNREEFEMVFNGEPEHT
 NVCFWYIPQSLRGVPDSPQRREKLHKVAPKIKALMMESGTTMVGYPQGDKANFF
 RMVISNPAATQSDIDFLIEEIERLGQDLTRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name [GAD1 glutamate decarboxylase 1 \[Homo sapiens \(human\) \]](#)

Official Symbol [GAD1](#)

Synonyms GAD1; glutamate decarboxylase 1 (brain, 67kDa); GAD, glutamate decarboxylase 1 (brain, 67kD); glutamate decarboxylase 1; GAD-67; 67 kDa glutamic acid decarboxylase; glutamate decarboxylase 67 kDa isoform; GAD; SCP; CPSQ1; FLJ45882;

Gene ID [2571](#)

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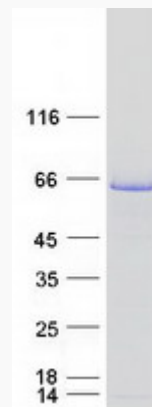
mRNA Refseq [NM_000817](#)

Protein Refseq [NP_000808](#)

MIM [605363](#)

UniProt ID [Q99259](#)

SDS-PAGE



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