

Recombinant Full Length Human GAD1 Protein, C-Flag-tagged

Cat. No. GAD1-783HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human GAD1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	66.7 kDa
AA Sequence	MASSTPSSSATSSNAGADPNTTNLRPTTYDTWCGVAHGCTRKLGLKICGFLQRTNS LEEKSRLVSAFKER QSSKNLLSCENS DRDARFRRTETDFS NLFARDLLPAKNGEEQ TVQFLLEVVDILLNYVRKTFDRSTKVLD FHHPHQLLEGMEGFNLELSDHPESLEQILV DCRDTLKYGVRTGHPRFFNQLSTGLDIIGLAGEWLTSTAN TNMFTYEIAPVFVLMEQ

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ITLKKMREIVGWSSKDGIGIFSPGGAISNMYSIMAARYKYFPEVKTGMAAVP KLVL
 FTSEQSRYSIKKAGAALGFGTDNVILIKCNERGEIIPADFEAKILEAKQKGYVPFYVNA
 TAGTTVY GAFDPIQEIADICEKYNLWLHVDAAWGGGLLMSRKHRHKLNGIERANSV
 TWNP HKMMGVLLQCSAILVKE KGILQGCNQM CAGYLFQPKQYDVSYDTGDKAIQ
 CGRHVDIFKFWLMWKAKGTVGFENQINKCLELAEYL YAKIKNREEFEMVFNGEPEH
 TNVCFWYIPQSLRGVPDSPQRREKLHKVAPKIKALMMESGTTMVGYPQPG
 DKANFFRMVISNPAATQSDIDFLIEEIERLGQDLTRTRPLEQKLISEEDLAANDILDYKD
 DDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
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
Full Length	Full L.

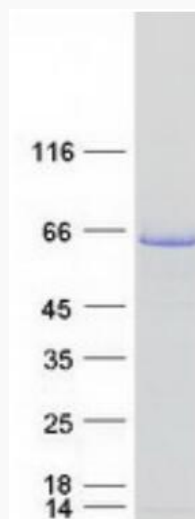
GENE INFORMATION

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Gene Name	GAD1 glutamate decarboxylase 1 [Homo sapiens (human)]
Official Symbol	GAD1
Synonyms	GAD; SCP; CPSQ1; DEE89
Gene ID	2571
mRNA Refseq	NM_000817.3
Protein Refseq	NP_000808.2
MIM	605363
UniProt ID	Q99259



Coomassie blue staining of purified GAD1 protein.

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