

Recombinant Human GAD2, GST-tagged

Cat. No. GAD2-13107H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GAD2 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-180a.a.
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 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.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

GENE INFORMATION

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Gene Name	GAD2 glutamate decarboxylase 2 (pancreatic islets and brain, 65kDa) [Homo sapiens]
Official Symbol	GAD2
Synonyms	GAD2; glutamate decarboxylase 2 (pancreatic islets and brain, 65kDa); glutamate decarboxylase 2 (pancreatic islets and brain, 65kD); glutamate decarboxylase 2; GAD65; GAD-65; 65 kDa glutamic acid decarboxylase; Glutamate decarboxylase-2 (pancreas); glutamate decarboxylase 65 kDa isoform; MGC161605; MGC161607;
Gene ID	2572
mRNA Refseq	NM_000818
Protein Refseq	NP_000809
MIM	138275
UniProt ID	Q05329
Chromosome Location	10p13-p11.2
Pathway	Alanine and aspartate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, conserved biosystem; Biogenic Amine Synthesis, organism-specific biosystem; Butanoate metabolism, organism-specific biosystem; Butanoate metabolism, conserved biosystem; GABA (gamma-Aminobutyrate) shunt, organism-specific biosystem;
Function	carboxy-lyase activity; glutamate decarboxylase activity; lyase activity; protein

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binding; pyridoxal phosphate binding;

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