Recombinant Full Length Human GAD2 Protein, His-tagged

Cat. No. GAD2-11090H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human GAD2 Protein, His Tag is expressed from Baculovirus-Insect cells. It contains AA Met 1 - Leu 585 (Accession # Q05329). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Met 1
Species	Human
Source	InsectCells
ProteinLength	1-585 aa
Description	Glutamate decarboxylase or glutamic acid decarboxylase (GAD) is an enzyme that catalyzes the decarboxylation of glutamate to gamma-aminobutyric acid (GABA), the major inhibitory transmitter in higher brain regions, and putative paracrine hormone in pancreatic islets. GAD uses pyridoxal-phosphate (PLP) as a cofactor.Two molecular forms of GAD (65 kDa and 67 kDa) are highly conserved and both are expressed in the CNS, pancreatic islet cells, testis, oviduct and ovary. The isoforms are regionally distributed cytoplasmically in the brains of rats and mice. GAD65 is an ampiphilic, membrane-anchored protein (585 a.a.), and is responsible for vesicular GABA production. GAD67 is cytoplasmic (594 a.a.), and seems to be responsible for significant cytoplasmic GABA production.
Form	Supplied as 0.2 μm filtered solution in 50 mM Tris, 150 mM NaCl, pH8.0 with glycerol as protectant.
Molecular Mass	The protein has a calculated MW of 67.3 kDa. The protein migrates as 65 kDa when

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	calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE).
Endotoxin	Less than 1.0 EU/μg by the LAL method/rFC method.
Purity	>90% as determined by SDS-PAGE.
Storage	This product is stable after storage at: The product MUST be stored at -70 centigrade or lower upon receipt; -70 centigrade for 3 months under sterile conditions. Please avoid repeated freeze-thaw cycles.
Concentration	0.2 mg/mL
Shipping	This product is supplied and shipped with dry ice, please inquire the shipping cost.

GENE INFORMATION

Gene Name	GAD2 glutamate decarboxylase 2 (pancreatic islets and brain, 65kDa) [Homo sapiens (human)]
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

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Protein Refseq	NP_000809
MIM	138275
UniProt ID	Q05329

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