

## 32-2343: GAD1 iso1 Recombinant Protein

**Alternative Name :** Glutamate Decarboxylase 1 (Brain,67kDa),Glutamate Decarboxylase 67 KDa Isoform,67 KDa Glutamic Acid Decarboxylase,EC 4.1.1.15, GAD-67,CPSQ1,SCP,GAD,Glutamate Decarboxylase 1 (Brain,67kD),Glutamate Decarboxylase 1,EC 4.1.1,GAD67,Glutamate

### Description

Source : E.coli. GAD1 iso1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 617 amino acids (1-594 a.a) and having a molecular mass of 69.3kDa. GAD1 iso1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. Glutamate Decarboxylase 1 Isoform-1, also known as GAD1 iso1 belongs to the group II decarboxylase family. GAD1 iso1 encodes one of several forms of glutamic acid decarboxylase, and is identified as a major autoantigen in insulin-dependent diabetes. GAD1 iso1 is in charge for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. In addition, a pathogenic function for GAD1 iso1 has been shown in the human pancreas while it has been identified as an autoantigen & an autoreactive T cell target in insulin-dependent diabetes. GAD1 iso1 play a role in the stiff man syndrome. It has been shown that deficiency in this enzyme has led to pyridoxine dependency with seizures.

### Product Info

**Amount :** 20 µg  
**Purification :** Greater than 80% as determined by SDS-PAGE.  
**Content :** GAD1 iso1 protein solution (0.5 mg/ml) containing 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.  
**Amino Acid :** MGSSHHHHHH SGLVPRGSH MGSMASTPS SSATSSNAGA DPNTTNRPT TYDTWCGVAH  
 GCTRKLGKICGFLQRTNSL EEKRLVSAF KERQSSKNLL SCENSDRDAR FRRTETDFSNFLFARDLLPAK  
 NGEEQTVQFLLEVVDILLNY VRKTFDRSTK VLDFFHHPQL LEGMEGFNLELSDHPESLEQ ILVDCRDTLK  
 YGVRTGHPRF FNQLSTGLDI IGLAGEWLTSTANTNMFTYE IAPVFLMEQ ITLKKMREIV GWSSKDGDGI  
 FSPGGAISNM YSIMAARYKY FPEVKTKGMAAVPKLVLFST EQSHYSIKKA GAALGFGTDN VILIKCNERG  
 KIIPADFEAK ILEAKQKGYVPFYVNATAGT TVYGAFDPIQ EIADICEKYN LWLHVDAAWG  
 GLLMSRKHRLKNGIERAN SVTWNPHKMM GVLLQCSAIL VKEKGILQGC NQMCAGYLFQ  
 PDKQYDVSYD TGDKAIQCGRHVDIFKFWLM WKAKGTVGFE NQINKCLELA EYLYAKIKNR EEFEMVFNGE  
 PEHTNVCFWYIPQSLRGVPD SPQRREKLHKVAPKIKALMM ESGTTMVGYQ PQGDKANFFR MVISNPAATQ  
 SDIDFLIEEI ERLGQDL.

