

**AR51658PU-N****Human GAD1 / GAD67 (1-594, His-tag) - Purified****Alternate names:**

67 kDa glutamic acid decarboxylase, GAD-67, Glutamate decarboxylase 1, Glutamate decarboxylase 67 kDa isoform

**Quantity:**

0.5 mg

**Concentration:**

0.5 mg/ml (determined by Bradford assay)

**Background:**

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 protein may also play a role in the stiff man syndrome. Deficiency in this enzyme has been shown to lead to pyridoxine dependency with seizures.

**Uniprot ID:**[Q99259](#)**NCBI:**[NP\\_000808](#)**GenelD:**[2571](#)**Species:**

Human

**Source:**

E. coli

**Format:****State:** Liquid purified protein**Purity:** >80% by SDS - PAGE**Buffer System:** 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol.**Description:**

Recombinant human GAD1 protein, fused to His-tag at N-terminus, was expressed in E.coli.

**AA Sequence:**

```
MGSSHHHHHH SSGLVPRGSH MGSMASTPS SSATSSNAGA DPNTTNRPT TYDTWCGVAH
GCTRKLGLKI CGFLQRTNSL EEKSRLVSAF KERQSSKNLL SCENSRRDAR FRRTETDFSN
LFARDLLPAK NGEEQTVQFL LEVVDILLNY VRKTFDRSTK VLDFHHPQL LEGMEGFNLE
LSDHPESLEQ ILVDCRDTLK YGVRTGHPRF FNQLSTGLDI IGLAGEWLTS TANTNMFTYE
IAPVFLMEQ ITLKKMREIV GWSSKGDGI FSPGGAISNM YSIMAARYKY FPEVKTKGMA
AVPKLVLFVS EQSHYSIKKA GAALGFQTDN VILIKCNERG KIIPADFEAK ILEAKQKGYV
PFYVNATAGT TVYGAFDPIQ EIADICEKYN LWLHVDAAWG GLLMSRKRH HKLNGIERAN
SVTWNPHKMM GVLLQCSAIL VKEKGILQGC NQMCAGYLFQ PDKQYDVSYSY TGDKAIQCGR
HVDIFKFWLM WKAKGTVGFE NQINKLELA EYLYAKIKNR EEFEMVFNGE PEHTNVCFWY
IPQSLRGVPD SPQRREKLHK VAPKIKALMM ESGTTMVGYY PQGDKANFFR MVISNPAATQ
SDIDFLIEEI ERLGQDL
```

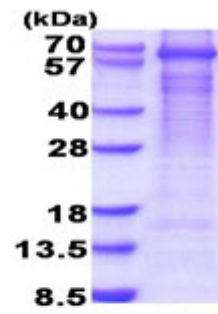
**Molecular weight:** 69.3 kDa (617aa)**Storage:**

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

**General Readings:**

Lynex C.N., et al. (2004) BMC Neurol. 4:20-20

Pictures:



15% SDS-PAGE (3ug)