

**AR51462PU-N****Human GAD1 / GAD67 (1-224, His-tag) - Purified****Alternate names:**

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

**Quantity:**

0.25 mg

**Concentration:**

0.5 mg/ml (determined by Bradford assay)

**Background:**

GAD1 is one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. It 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. Alternative splicing of this gene results in two products, the predominant 67-kD form and a less-frequent 25-kD form.

**Uniprot ID:**

[Q99259](#)

**NCBI:**

[NP\\_038473](#)

**GenelD:**

[2571](#)

**Species:**

Human

**Source:**

E. coli

**Format:**

**State:** Liquid purified protein

**Purity:** >85% by SDS - PAGE

**Buffer System:** 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.4M Urea

**Description:**

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

**AA Sequence:**

MGSSHHHHHH SGLVPRGSH MGSMASTPS SSATSSNAGA DPNTTTLRPT TYDTWCGVAH  
GCTRKLGLKI CGFLQRTNSL EEKSRLVSAF KERQSSKNLL SCENSDDRAR FRRTETDFSN  
LFARDLLPAK NGEEQTVQFL LEVVDILLNY VRKTFDRSTK VLDFHHPHQL LEGMEGFNLE  
LSDHPESLEQ ILVDCRDTLK YGVRTGHPRF FNQLSTGLDI IGLAGEWLTS TANTNMPSDM  
RECWLLR

**Molecular weight:** 27.7 kDa (247 aa)

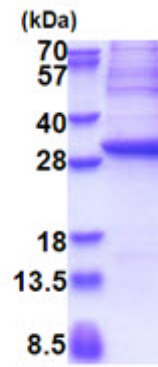
**Storage:**

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:**

Chessler S.D., Lernmark A., et al. (2000) J. Biol. Chem. 275:5188-5192.

Pictures:



15% SDS-PAGE (3ug)