

GAD1, 1-224aa, Human, His tag, E.coli**Cat.NO.: TP02174**

3th Edition

Synonyms: Glutamate decarboxylase 1 isoform GAD25, Glutamate decarboxylase 1 (brain, 67kDa), CPSQ1, GAD, SCP

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

Form: Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.4M Urea**Molecular Weight:** 27.7 kDa (247 aa)**Sequences:**

MGSSHHHHHHSSGLVPRGSHMGSMASSTPSSSATSSNAGADPNTTNLRPTTYDTWCGVAHGCTRKLGLKICGFL
QRTNSLEEKSRLLVSAFKERQSSKNLLSCENS DRDARFRRTETDFS NLFARDLLPAKNGEEQTVQFLLEVVDILLNYV
RKTFDRSTKVLDFHHPHQLLEGMEGFNLELSDHPESLEQILVDCRDTLKYGVRTGHP RFFNQLSTGLDIIGLAGEWL
TSTANTNMPSDMRECWLLR

Purity: > 95% by HPLC**Concentration:** 0.5 mg/ml (determined by Bradford assay)**Endotoxin Level:** <1.0 EU per 1 ug of protein (determined by LAL method)**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.