

Recombinant human GAD1/GAD67 protein

Catalog Number: ATGP2642

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-224aa

UniProt No.

Q99259

NCBI Accession No.

NP_038473.2

Alternative Names

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

PRODUCT SPECIFICATION

Molecular Weight

27.7 kDa (247aa)

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.4M urea

Purity

> 85% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE, Denatured

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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-

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frequent 25-kD form. Recombinant human GAD1 protein, fused to His-tag at N-terminus, was expressed in E. coli.

Amino acid Sequence

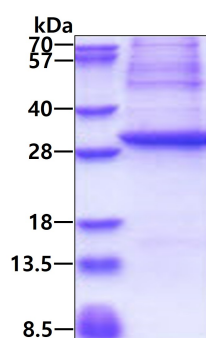
<MGSSHHHHHH SSGLVPRGSH MGS>MASSTPS SSATSSNAGA DPNTTNLRPT TYDTWCGVAH GCTRKLGLKI
CGFLQRTNSL EEKSRLVSAF KERQSSKNLL SCENSDRDAR FRRTETDFSN LFARDLLPAK NGEEQTVQFL LEVVDILLNY
VRKTFDRSTK VLDFHHHPQL LEGMEGFNLE LSDHPESLEQ ILVDCRDTLK YGVRTGHPRF FNQLSTGLDI IGLAGEWLTS
TANTNMPSDM RECWLLR

General References

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

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.