

GAD1-iso1, 1-594aa, Human, His tag, E.coli

Cat.NO.: TP02175

3th Edition

Synonyms: Glutamate decarboxylase 1, CPSQ1, GAD, SCP

Description: 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. 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

Molecular Weight: 69.3 kDa (617aa)

Sequences:

MGSSHHHHHHSSGLVPRGSHMGSMASSTPSSSATSSNAGADPNTTNLRPTTYDTWCGVAHGCTRKLGLKICGFL
QRTNSLEEKSRVSAFKERQSSKNLLSCENSDDRDRFRRTETDFSNLFARDLLPAKNGEEQTVQFLLEVVDILLNYV
RKTFDRSTKVLDFFHHPQLLEGMEGFNLELSDHPESLEQILVDCRDTLKYGVRTGHPFRFFNQLSTGLDIIGLAGEWL
TSTANTNMFTYEIAPVFVLMQITLKKMREIVGWSSKDGDGIFSPGGAISNMYSIMAAARYKYFPEVKTGMAAVPKL
VLFTSEQSHYSIKKAGAAALGFGTDNVILIKCNERGKIIPADFEAKILEAKQKGYVPFYVNATAGTTVYGAFDPIQEIADI
CEKYNLWLHVDAAWGGGLLMSRKHRHKLNGIERANSVTWNPBKMMGVLLQCSAILVKEKGILQGCNQMCAGYLF
QPDQYDVSYDTGDKAIQCGRHVDIFKFWLMWKAKGTVGFGFENQINKCLELAELYAKIKNREEFEMVFNGEPEHTN
VCFWYIPQSLRGVPDSPQRREKLHKVAPKIKALMMESGTTMVGYPQGDKANFFRMVISNPAATQSDIDFLIEEIER
LGQDL

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.