OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AR51658PU-S 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: 0.1 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

GeneID: 2571

Species: Human

Source: E. coli

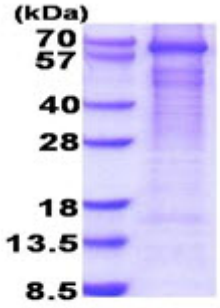
Format: **State:** Liquid purified protein
Purity: >80% by SDS - PAGE
Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol.

Description: Recombinant human GAD1 protein, fused to His-tag at N-terminus, was expressed in E.coli.
AA Sequence:
MGSSHHHHHH SSGLVPRGSH MGSMASSTPS SSATSSNAGA DPNTTNLRPT TYDTWCGVAH
GCTRKLGLKI CGFLQRTNSL EEKSRLVSAF KERQSSKNLL SCENSDRDAR FRRTETDFSN
LFARDLLPAK NGEEQTVQFL LEVVDILLNY VRKTFDRSTK VLDFHHPHQL LEGMEGFNLE
LSDHPESLEQ ILVDCRDTLK YGVRTGHPRF FNQLSTGLDI IGLAGEWLTS TANTNMFTYE
IAPVFVLMEQ ITLKKMREIV GWSSKDGDGI FSPGGAISNM YSIMAARYKY FPEVKTKGMA
AVPKLVLFTS EQSHYSIKKA GAALGFGTDN VILIKCNERG KIIPADFEAK ILEAKQKGYV
PFYVNATAGT TVYGAFDPIQ EIADICEKYN LWLHVDAAWG GGLLMSRKHR HKLNGIERAN
SVTWNPHKMM GVLLQCSAIL VKEKGILQGC NQMCAGYLFQ PDKQYDVSYD TGDKAIQCGR
HVDIFKFWLM WKAKGTVGFE NQINKCLELA EYLYAKIKNR EEFEMVFNGE PEHTNVCFWY
IPQSLRGVPD SPQRREKLHK VAPKIKALMM ESGTTMVGYQ 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)