

## GAD1, human recombinant

**CATALOG NO:** P1153-10 10 µg  
P1153-50 50 µg

**ALTERNATE NAMES:** CPSQ1, GAD, SCP, Glutamate decarboxylase 1

**CONCENTRATION:** 0.5 mg/ml (determined by Bradford assay)

**SOURCE:** GAD1 recombinant protein was expressed in *E.coli* and fused to His-tag at N-terminus (1-594aa)

**PURITY:** > 80% by SDS-PAGE

**MOL. WEIGHT:** This protein is fused with 6x His tag at N terminus and the protein has a calculated MW of 69.3 kDa (617aa)

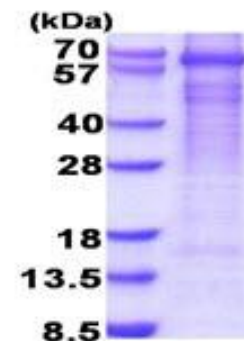
**FORM:** Liquid

**FORMULATION:** In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

**STORAGE CONDITIONS:** Store at +4°C for short term (1-2 weeks). For long term storage, aliquot and store at -70°C. Avoid repeated freeze/thaw cycles.

**SEQUENCE:** MGSSHHHHH SGLVPRGSH MGSMASSTPS SSATSSNAGA  
DPNTTTLRPT TYDTWCGVAH GCTRKLGLKI CGFLQRTNSL  
EEKSRLVSAF KERQSSKNLL SCENSRRDAR FRRTEPDFSN  
LFARDLLPAK NGEEQTVQFL LEVVDILLNY VRKTFDRSTK  
VLDFHHPHQL LEGMEGFNLE LSDHPESLEQ ILVDCRDTLK  
YGVRTGHPRF FNQLSTGLDI IGLAGEWLTS TANTNMFTYE  
IAPVFLMEQ ITLKKMREIV GWSSKDG DGI FSPGGAISNM  
YSIMAARYKY FPEVKTKGMA AVPKLVLFST EQSHYSIKKA  
GAALGFQTDN VILIKCNERG KIIPADFEAK ILEAKQKGYV  
PFYVNATAGT TVYGAFDPIQ EIADICEKYN LWLHVDAAWG  
GGLMSRKHRL HKNLNGIERAN SVTWNPHKMM GVLLQCSAIL  
VKEKGLQGC NQMCAGYLFQ PDKQYDVS YD TGDKAIQCGR  
HVDIFKFWLM WKAKGTVGFE NQINKCLELA EYLYAKIKNR  
EEFEMVFNGE PEHTNVCFWY IPQSLRGVPD SPQRREKLHK  
VAPKIKALMM ESGTTMVGYQ PQGDKANFFR MVISNPAATQ  
SDIDFLIEEI ERLGQDL

**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*.



15% SDS-PAGE (3µg)

Human recombinant GAD1

### RELATED PRODUCT:

- CSTB, human recombinant (**Cat. No. 9235-10**)
- CST6, human recombinant (**Cat. No. 9234-10**)
- Cathepsin B, Active, human recombinant (**Cat. No. 7580-50**)
- Cathepsin D, Active, human recombinant (**Cat. No. 9229-50**)
- Cathepsin K, Active, human recombinant (**Cat. No. 7600-50**)
- Cathepsin L, human recombinant (**Cat. No. 1135-100**)
- Cathepsin S, Active, human recombinant (**Cat. No. 7526-50**)
- Human CellExp™ Cathepsin B, human recombinant (**Cat. No. 7408-10**)
- Human CellExp™ Cathepsin D, human recombinant (**Cat. No. 7409-10**)
- Human CellExp™ Cathepsin L1, human recombinant (**Cat. No. 7410-10**)
- Human CellExp™ Cathepsin S, human recombinant (**Cat. No. 7277-10**)
- Cathepsin D Activity Fluorometric Assay Kit (**Cat. No. K143-100**)
- Cathepsin B Activity Fluorometric Assay Kit (**Cat. No. K140-100**)

**FOR RESEARCH USE ONLY! Not to be used on humans.**