

### Human CellExp GAD1, human recombinant protein

GAD1, CPSQ1, GAD, SCP, GAD-1, CPSQ-1, GAD67, GAD-67 Catalog # PBV10880r

### **Specification**

### Human CellExp GAD1, human recombinant protein - Product info

Primary Accession <u>Q99259</u>

Calculated MW This protein is fused with 6×his tag at

C-terminus, has a calculated MW of 67 kDa expressed. The predicted N-terminus is Met1. Protein migrates as the predominant 64 kDa form and a less-frequent 24-kDa form in reduced SDS-PAGE resulting from

alternative splicing. KDa

### Human CellExp GAD1, human recombinant protein - Additional Info

Gene ID 2571 Gene Symbol GAD1

**Other Names** 

GAD1, CPSQ1, GAD, SCP, GAD-1, CPSQ-1, GAD67, GAD-67

Gene Source Human

Source HEK 293 cells
Assay&Purity SDS-PAGE; ≥92%

Assay2&Purity2 HPLC; Recombinant Yes

**Target/Specificity** 

GAD1

### **Application Notes**

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50  $\mu$ g/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

#### **Format**

Lyophilized powder

#### Storage

-20°C; Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH 7.4, 1 mM EDTA with some stabilizer. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

# Human CellExp GAD1, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides



- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Human CellExp GAD1, human recombinant protein - Images

# Human CellExp GAD1, human recombinant protein - Background

Glutamate decarboxylase 1 (GAD1), also known as 67 kDa glutamic acid decarboxylase and Glutamate decarboxylase 67 kDa isoform, is a member of the group II decarboxylase family. GAD1 is expressed in benign and malignant prostatic tissue and may serve as a highly prostate-specific tissue biomarker. GAD1 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. GAD1 may also play a role in the stiff man syndrome. Defects in GAD1 are the cause of cerebral palsy spastic quadriplegic type 1 (CPSQ1) which is a non-progressive disorder of movement and/or posture resulting from defects in the developing central nervous system. GAD1 has been shown to interact with GAD2. Affected individuals manifest symmetrical, non-progressive spasticity and no adverse perinatal history or obvious underlying alternative diagnosis.

## Human CellExp GAD1, human recombinant protein - References

Bu D.-F., et al. Proc. Natl. Acad. Sci. U.S.A. 89:2115-2119(1992). Bu D.-F., et al. Genomics 21:222-228(1994). Kelly C.D., et al. Lancet 338:1468-1469(1991). Kelly C.D., et al. Ann. Hum. Genet. 56:255-265(1992). Yamashita K., et al. Biochem. Biophys. Res. Commun. 192:1347-1352(1993).