GAD1, Human CellExp™, human recombinant

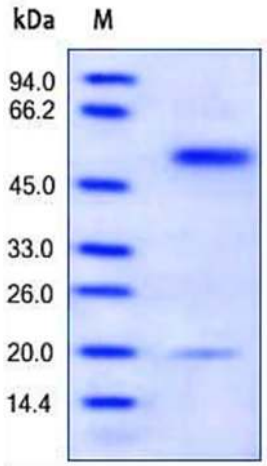
CATALOG #:	7250-10	10 µg
	7250-50	50 µg
ALTERNATE NAMES:	GAD1, CPSQ1, GAD, SCP, GAD-1, CPSQ-1, GAD67, GAD-67	
SOURCE:	HEK 293 cells (Met1-Leu594)	
PURITY:	≥ 90% by SDS-PAGE gel	
MOL. WEIGHT:	This protein is fused with 6×his tag at C-terminus, has a calculated MW of 67 kDa expressed. The predicted N-terminus 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.	
ENDOTOXIN LEVEL:	<1 EU/µg by LAL method	
FORM:	Lyophilized	

FORMULATION: Lyophilized from 0.22 µm 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.

STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/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.

DESCRIPTION: 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 recombinant GAD1

RELATED PRODUCTS:

- Glutamate Colorimetric Assay Kit **(Cat. No. K629-100)**
- Glutamate Dehydrogenase Activity Colorimetric Assay Kit **(Cat. No. K729-100)**
- JM6 **(Cat. No. 1913-5, -25)**
- Kainic Acid **(Cat. No. 2279-5, -25)**
- Ro 61-8048 **(Cat. No. 1912-5, -25)**

FOR RESEARCH USE ONLY! Not to be used in humans.