Recombinant Human GAD67/GAD1 Protein (His Tag)

Catalog Number: PKSH030814

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	Baculovirus-Insect Cells-derived Human GAD67/GAD1 protein Met 1-Leu 594, with
	an C-terminal His
Calculated MW	68.3 kDa
Observed MW	64 kDa
Accession	Q99259-1
Bio-activity	Not validated for activity
Properties	
Purity	> 92 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.5
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	
KDa MK	R
116	
66.2	
45.0	
35.0	
25.0	
Properties Purity Endotoxin Storage Shipping Formulation Reconstitution Data KDa MK 116 66.2 45.0 35.0 25.0	 > 92 % as determined by reducing SDS-PAGE. < 1.0 EU per µg of the protein as determined by the LAL method. Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. This product is provided as lyophilized powder which is shipped with ice packs. Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

> 92 % as determined by reducing SDS-PAGE.

18.4 14.4

Background

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Glutamate decarboxylase 1, also known as 67 kDa glutamic acid decarboxylase, Glutamate decarboxylase 67 kDa isoform and GAD1, is a member of thegroup II decarboxylase family. GAD1 is expressed in benign and malignant prostatic tissue and may serve as a highly prostate-specific tissue biomarker. GAD1 isoform3 is expressed in pancreatic islets, testis, adrenal cortex, and perhaps other endocrine tissues, but not in brain. Tissue-specific markers are useful for identification of tumour type in advanced cancers of unknown origin. In plants, as in most eukaryotes, glutamate decarboxylase catalyses the synthesis of GABA. Root-specific calcium/calmodulin-regulated GAD1 plays a major role in GABA synthesis in plants under normal growth conditions and in response to stress. 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. Affected individuals manifest symmetrical, nonprogressive spasticity and no adverse perinatal history or obvious underlying alternative diagnosis.