

# Recombinant Human GAD67/GAD1 Protein (His Tag)

Catalog Number:PKSH030814



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

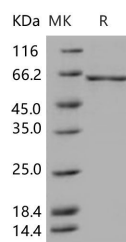
## Description

<b>Synonyms</b>	CPSQ1;GAD;SCP
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Leu 594
<b>Accession</b>	Q99259-1
<b>Calculated Molecular Weight</b>	68.3 kDa
<b>Observed molecular weight</b>	64 kDa
<b>Tag</b>	C-His

## Properties

<b>Purity</b>	> 92 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 8.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



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## Background

Glutamate decarboxylase 1, also known as 67 kDa glutamic acid decarboxylase, Glutamate decarboxylase 67 kDa isoform and GAD1, 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 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

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defects in the developing central nervous system. Affected individuals manifest symmetrical, non-progressive spasticity and no adverse perinatal history or obvious underlying alternative diagnosis.

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