



### Synonym

GAD2,GAD65,Glutamate decarboxylase 2

### Source

Human GAD2 Protein, His Tag(GA2-H55H3) is expressed from Baculovirus-Insect cells. It contains AA Met 1 - Leu 585 (Accession # [Q05329](#)).

Predicted N-terminus: Met 1

### Molecular Characterization

GAD2(Met 1 - Leu 585)  
Q05329 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 67.3 kDa. The protein migrates as 65 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>90% as determined by SDS-PAGE.

### Formulation

Supplied as 0.2 µm filtered solution in 50 mM Tris, 150 mM NaCl, 1 mM TCEP, pH8.0 with glycerol as protectant.

Contact us for customized product form or formulation.

### Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

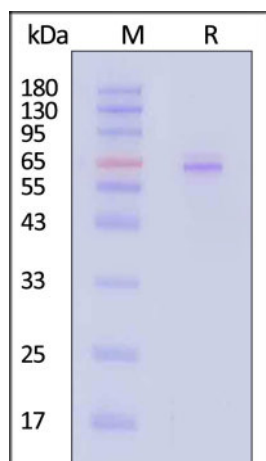
### Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

### SDS-PAGE



Human GAD2 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

### Background

Glutamate decarboxylase or glutamic acid decarboxylase (GAD) is an enzyme that catalyzes the decarboxylation of glutamate to gamma-aminobutyric acid (GABA), the major inhibitory transmitter in higher brain regions, and putative paracrine hormone in pancreatic islets. GAD uses pyridoxal-phosphate (PLP) as a cofactor. Two molecular forms of GAD (65 kDa and 67 kDa) are highly conserved and both are expressed in the CNS, pancreatic islet cells, testis, oviduct and ovary. The isoforms are regionally distributed cytoplasmically in the brains of rats and mice. GAD65 is an amphiphilic, membrane-anchored protein (585 a.a.), and is responsible for vesicular GABA production. GAD67 is cytoplasmic (594 a.a.), and seems to be responsible for significant cytoplasmic GABA production.

### Clinical and Translational Updates

Discounts, Gifts,  
and more!

