

**Anti-GAD65 Antibody**  
Catalog # ABO10726**Specification****Anti-GAD65 Antibody - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">Q05329</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human, Mouse, Rat</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**Description**

Rabbit IgG polyclonal antibody for Glutamate decarboxylase 2(GAD2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-GAD65 Antibody - Additional Information**

**Gene ID** 2572

**Other Names**

Glutamate decarboxylase 2, 4.1.1.15, 65 kDa glutamic acid decarboxylase, GAD-65, Glutamate decarboxylase 65 kDa isoform, GAD2, GAD65

**Calculated MW**

65411 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**Subcellular Localization**

Cytoplasm, cytosol . Cytoplasmic vesicle . Cell junction, synapse, presynaptic cell membrane ; Lipid-anchor . Golgi apparatus membrane ; Peripheral membrane protein ; Cytoplasmic side . Associated to cytoplasmic vesicles. In neurons, cytosolic leaflet of Golgi membranes and presynaptic clusters.

**Protein Name**

Glutamate decarboxylase 2

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human GAD65(21-37aa ENPGTARAWCQVAQKFT), identical to the related mouse and rat sequences.

### Purification

Immunogen affinity purified.

### Cross Reactivity

No cross reactivity with other proteins

### Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

### Sequence Similarities

Belongs to the group II decarboxylase family.

## Anti-GAD65 Antibody - Protein Information

**Name** GAD2 ([HGNC:4093](#))

**Synonyms** GAD65

### Function

Catalyzes the production of GABA.

### Cellular Location

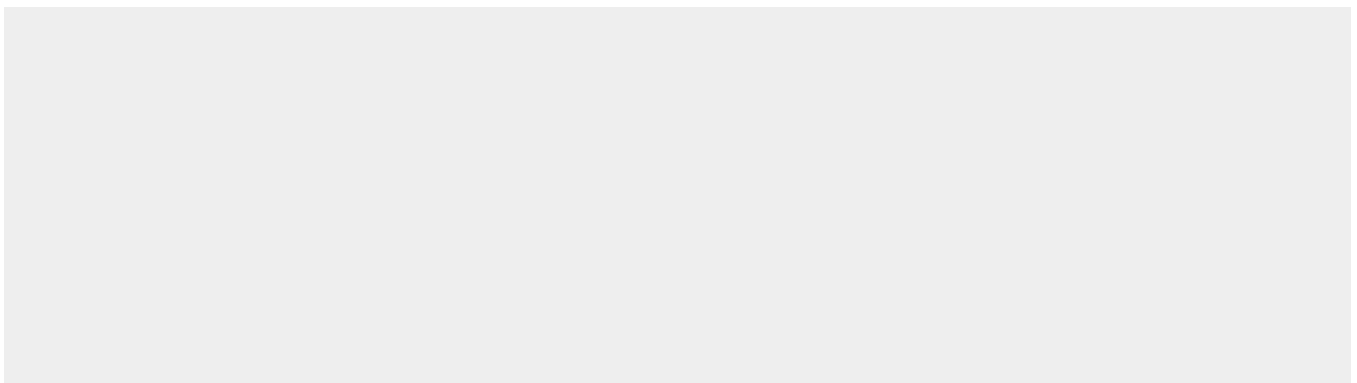
Cytoplasm, cytosol. Cytoplasmic vesicle. Presynaptic cell membrane; Lipid-anchor. Golgi apparatus membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated to cytoplasmic vesicles In neurons, cytosolic leaflet of Golgi membranes and presynaptic clusters

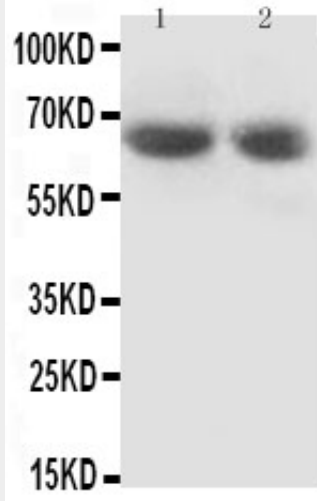
## Anti-GAD65 Antibody - Protocols

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

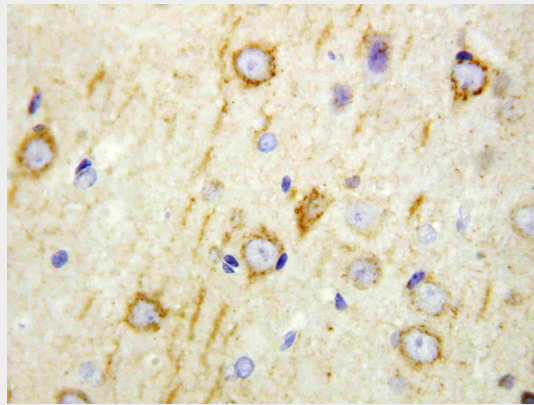
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-GAD65 Antibody - Images





Anti-GAD65 antibody, ABO10726, Western blotting Lane 1: Rat Brain Tissue Lysate Lane 2: Rat Brain Tissue Lysate



Anti-GAD65 antibody, ABO10726, IHC(P) IHC(P): Rat Brain Tissue

### Anti-GAD65 Antibody - Background

Glutamate decarboxylase 2, also known as GAD65, is an enzyme that in humans is encoded by the GAD2 gene. This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded 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 autoantibody and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Alternative splicing results in multiple transcript variants that encode the same protein.