

**Anti-GAD65 Picoband Antibody**  
Catalog # ABO13005**Specification****Anti-GAD65 Picoband Antibody - Product Information**

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

**Description**

Rabbit IgG polyclonal antibody for GAD65 detection. Tested with WB, IHC-P, Direct ELISA in Human;Mouse;Rat.

**Reconstitution**

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

**Anti-GAD65 Picoband 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

**Application Details**

Western blot, 0.1-0.5 µg/ml  
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml  
Direct ELISA, 0.1-0.5 µg/ml

**Subcellular Localization**

Cytoplasm, cytosol.

**Contents**

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

**Immunogen**

E. coli-derived human GAD65 recombinant protein (Position: K84-L182).

**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.**

## Anti-GAD65 Picoband 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 Picoband 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 Picoband Antibody - Images

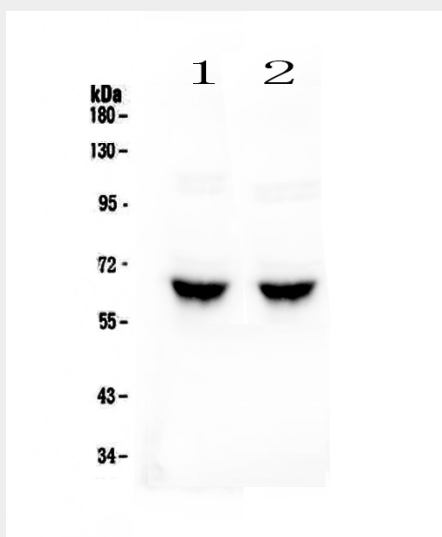


Figure 1. Western blot analysis of GAD65 using anti-GAD65 antibody (ABO13005). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GAD65 antigen affinity purified polyclonal antibody (Catalog # ABO13005) at 0.5  $\mu$ g/mL

overnight at 4Å°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GAD65 at approximately 65KD. The expected band size for GAD65 is at 65KD.

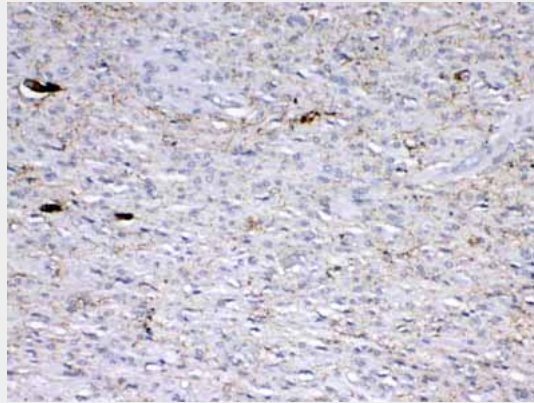


Figure 2. IHC analysis of GAD65 using anti-GAD65 antibody (ABO13005).GAD65 was detected in paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti-GAD65 Antibody (ABO13005) overnight at 4Å°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Å°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

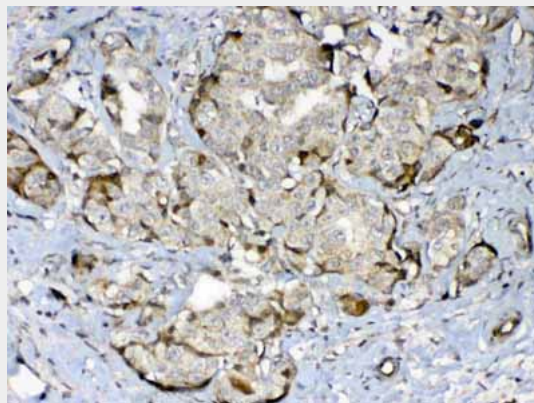


Figure 3. IHC analysis of GAD65 using anti-GAD65 antibody (ABO13005).GAD65 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti-GAD65 Antibody (ABO13005) overnight at 4Å°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Å°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

### **Anti-GAD65 Picoband 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.