

Datasheet for ABIN5693229

anti-GAD65 antibody (AA 84-182)**3** Images**1** Publication[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	GAD65 (GAD2)
Binding Specificity:	AA 84-182
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GAD65 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human GAD65 recombinant protein (Position: K84-L182).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for GAD65 detection. Tested with WB, IHC-P, Direct ELISA in Human, Mouse, Rat.

Target Details

Target:	GAD65 (GAD2)
Alternative Name:	GAD2 (GAD2 Products)
Background:	Synonyms: Glutamate decarboxylase 2, 65 kDa glutamic acid decarboxylase, GAD-65,

Target Details

Glutamate decarboxylase 65 kDa isoform, GAD2, GAD65

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.

UniProt: [Q05329](#)

Application Details

Application Notes: Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg NaN₃.

Preservative: Sodium azide

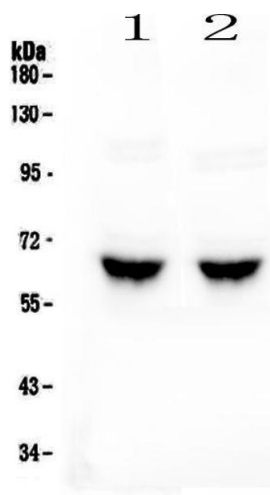
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C,-20 °C

Storage Comment: At -20°C for one year. After reconstitution, 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.

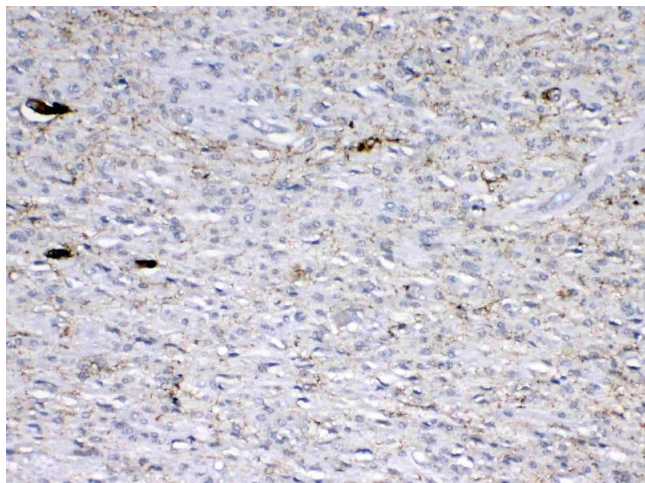
Product cited in: Tian, Ma, Shi, Lou, Liu, Li: "Acrylamide neurotoxicity on the cerebrum of weaning rats." in: **Neural regeneration research**, Vol. 10, Issue 6, pp. 938-43, (2015) ([PubMed](#)).

Images



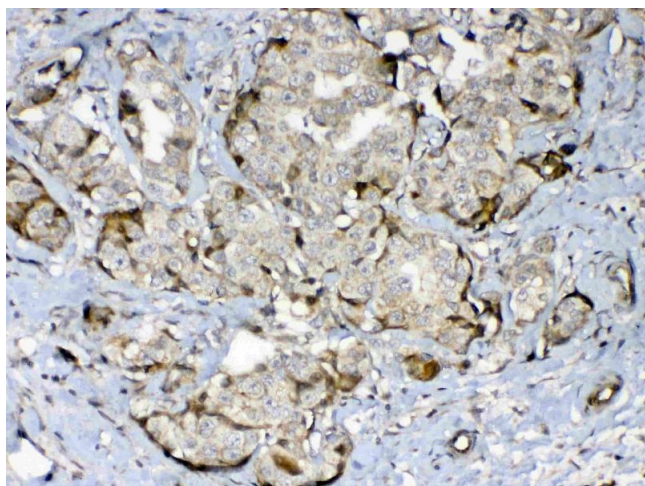
Western Blotting

Image 1. Western blot analysis of GAD65 using anti-GAD65 antibody . 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 #) at 0.5 µg/mL overnight at 4°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 (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for GAD65 at approximately 65KD. The expected band size for GAD65 is at 65KD.



Immunohistochemistry

Image 2. IHC analysis of GAD65 using anti-GAD65 antibody . 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 1µg/ml rabbit anti-GAD65 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 3. IHC analysis of GAD65 using anti-GAD65 antibody . 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 1µg/ml rabbit anti-GAD65 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.