

Anti-GAD67/GAD1 Antibody Picoband™

Catalog Number: PB9183

About GAD1

Glutamate decarboxylase 1 (brain, 67kDa) (GAD67), also known as GAD1, is a human gene. It is mapped to 2q31.1. 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 autoantigen and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Deficiency in this enzyme has been shown to lead to pyridoxine dependency with seizures. Alternative splicing of this gene results in two products, the predominant 67-kD form and a less-frequent 25-kD form.

Overview

Product Name	Anti-GAD67/GAD1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GAD67/GAD1 Antibody Picoband™ catalog # PB9183. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q99259

Technical Details

Immunogen	E.coli-derived human GAD67 recombinant protein (Position: N14-D122). Human GAD67 shares 95% amino acid (aa) sequence identity with both mouse and rat GAD67.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-GAD67/GAD1 Antibody Picoband™ (PB9183) Images

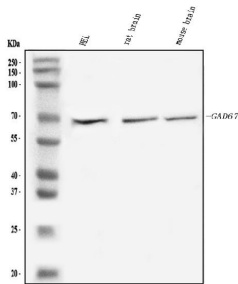


Figure 1. Western blot analysis of GAD67/GAD1 using anti-GAD67/GAD1 antibody (PB9183).

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 30 ug of sample under reducing conditions.

Lane 1: human HEL whole cell lysates,

Lane 2: rat brain tissue lysates,

Lane 3: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-GAD67/GAD1 antigen affinity purified polyclonal antibody (Catalog # PB9183) at 0.5 ug/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 1:5000 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 GAD67/GAD1 at approximately 67 kDa. The expected band size for GAD67/GAD1 is at 67 kDa.

2 Publications Citing This Product

1. PubMed ID: 27630542, Excitatory and inhibitory neurons in the hippocampus exhibit molecularly distinct large dense core vesicles

2. PubMed ID: 26863207, Dietary Restriction Affects Neuronal Response Property and GABA Synthesis in the Primary Visual Cortex

Visit bosterbio.com/anti-gad67-picoband-trade-antibody-pb9183-boster.html to see all 2 publications.

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