GAD67 Recombinant Antibody [PSH08-30] - Rabbit IgG (Chimeric) - BSA and Azide free

HA751895

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 67 kDa
Clone number:	PSH08-30

Description: There are two forms of glutamic acid decarboxylases (GADs) that are found in the brain: GAD-65 (also known as GAD2) and GAD-67 (also known as GAD1, GAD or SCP). GAD-65 and GAD-67 are members of the group II decarboxylase family of proteins and are responsible for catalyzing the rate limiting step in the production of GABA (g-aminobutyric acid) from L-glutamic acid. Although both GADs are found in the brain, GAD-65 localizes to synaptic vesicle membranes in nerve terminals, while GAD-67 is distributed throughout the cell. GAD-67 is responsible for the basal levels of GABA synthesis. In the case of a heightened demand for GABA in neurotransmission, GAD-65 will transiently activate to assist in GABA production. The loss of GAD-65 is detrimental and can impair GABA neurotransmission, however the loss of GAD-67 is lethal. Due to alternative splicing, two isoforms exist for GAD-67, the predominant GAD-67 form and the minor GAD-25 form. GAD-25 is not expressed in brain but can be found in a variety of endocrine tissues.

Immunogen: Recombinant protein within human GAD67 aa 1-594.

Positive control: Mouse brain tissue lysate, Rat brain tissue lysate.

Subcellular location: Cytoplasm, Plasma Membrane.

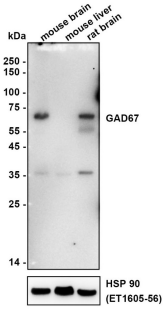
Database links: SwissProt: Q99259 Human | P48318 Mouse | P18088 Rat

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at 2-8℃. Avoid freeze.

Purity: Protein A affinity purified.

Images



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Fig1: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Western blot analysis of GAD67 on different lysates with Rabbit anti-GAD67 antibody (HA724362) at 1/5,000 dilution.

Lane 1: Mouse brain tissue lysate
Lane 2: Mouse liver tissue lysate (negative)
Lane 3: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.
Exposure time: 3 minutes; ECL: K1802

Mouse liver is a negative control (PMID: 33968199).

Blocking: 5% NFDM/TBST, 1 hour at room temperature
Primary antibody: HA724362, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C
Secondary antibody: Goat anti-Rabbit IgG-HRP (HA1001), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 67 kDa
Observed band size: 67 kDa

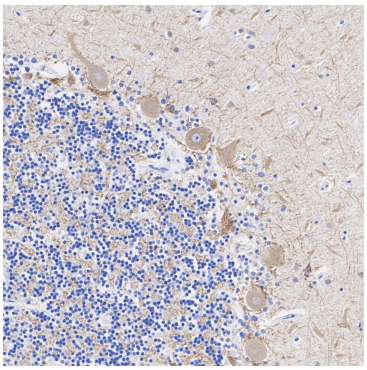


Fig2: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunohistochemistry (IHC-P)

Species: Human
Tissue: Cerebellum
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724362, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

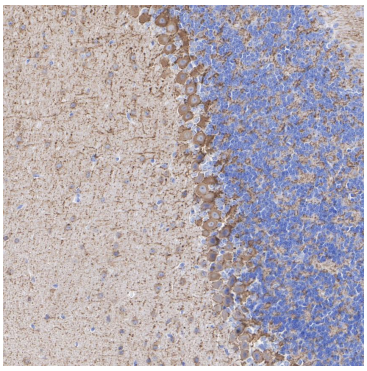


Fig3: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Cerebellum
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724362, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

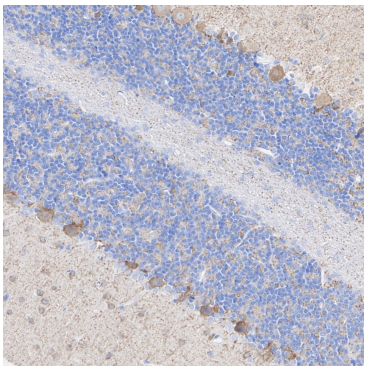


Fig4: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Cerebellum
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724362, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

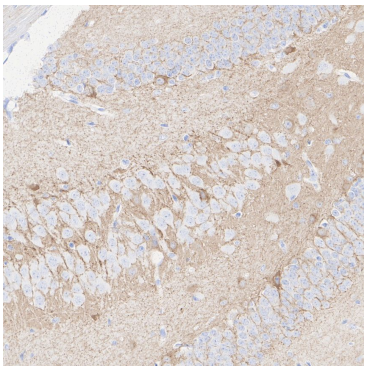


Fig5: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Hippocampus
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724362, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

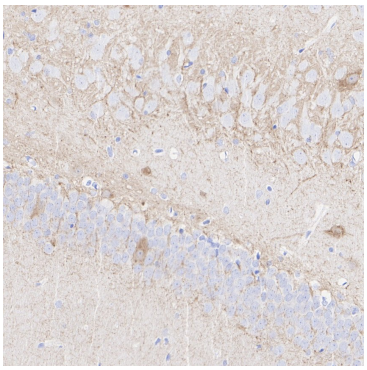


Fig6: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunohistochemistry (IHC-P)

Species: Rat
Tissue: Hippocampus
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H_2O_2, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA724362, 1/1,000, 1 hour at room temperature.
Secondary antibody: HA1119, 20 minutes at room temperature.

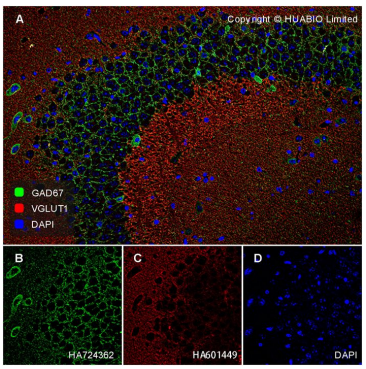


Fig7: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunofluorescence (IF-tissue)

Species: Mouse
Tissue: Hippocampus
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× PBST
Endogenous peroxidase blocking: 3% H2O2, 10 minutes.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: GAD67, 1/500 (HA724362, Rabbit, Green), VGLUT1, 1/500 (HA601449, Guinea pig, Red), overnight at 4℃.
Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), Goat anti-Guinea pig IgG (iFluor™ 594, HA1143), 1.5 hours at room temperature.

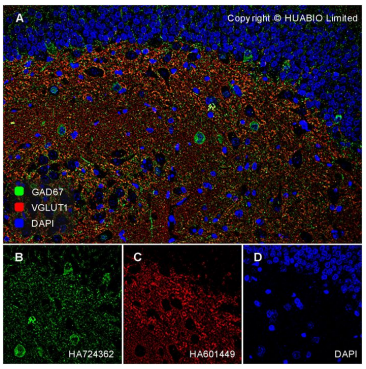


Fig8: This data was developed using HA724362, the same antibody clone in a different buffer formulation.
Application: Immunofluorescence (IF-tissue)

Species: Rat
Tissue: Hippocampus
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× PBST
Endogenous peroxidase blocking: 3% H2O2, 10 minutes.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: GAD67, 1/500 (HA724362, Rabbit, Green), VGLUT1, 1/500 (HA601449, Guinea pig, Red), overnight at 4℃.
Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), Goat anti-Guinea pig IgG (iFluor™ 594, HA1143), 1.5 hours at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References