

Anti-GAD65 Antibody [PSH06-80] - BSA and Azide free

HA751102



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat, Cynomolgus monkey, Pig

Applications: WB, IHC-P, IF-Tissue, IHC-Fr

Molecular Wt: Predicted band size: 65 kDa

Clone number: PSH06-80

Description: 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.

Immunogen: Recombinant protein.

Positive control: Mouse brain tissue lysate, Mouse cerebellum tissue lysate, Rat brain tissue lysate, Rat cerebellum tissue lysate, human cerebellum tissue, mouse cerebellum tissue, rat cerebellum tissue, mouse brain tissue.

Subcellular location: Cytoplasm, cytosol, Cytoplasmic vesicle, Presynaptic cell membrane, Golgi apparatus membrane.

Database links: SwissProt: Q05329 Human | P48320 Mouse | Q05683 Rat

Recommended Dilutions:

WB 1:2,000-1:5,000

IHC-P 1:1,000

IF-Tissue 1:500

IHC-Fr 1:500-1:2,000

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co.,Ltd.

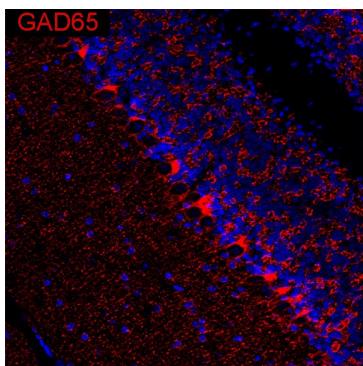
Orders:0086-571-88062880

Technical:0086-571-89986345

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Images

**Fig1: Application: IHC-Fr**

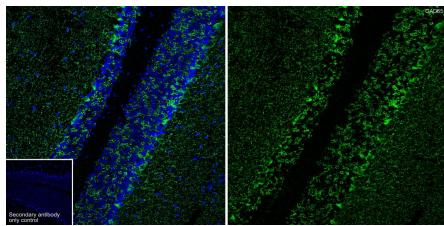
Species: Mouse

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig2: Application: IHC-Fr**

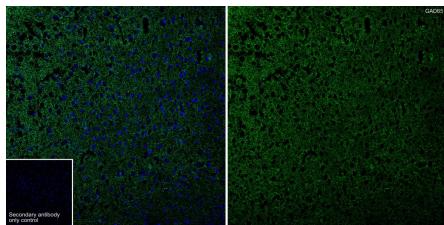
Species: Mouse

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig3: Application: IHC-Fr**

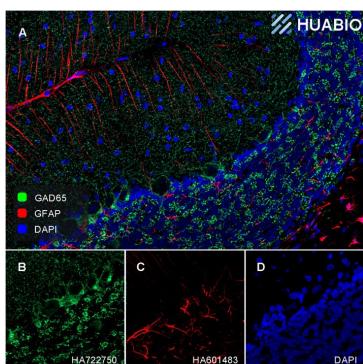
Species: Mouse

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig4: Application: IHC-Fr**

Species: Rat

Site: cerebellum

Sample: Frozen section

Antibody concentration: 1/500 (GAD65, HA751102, Rabbit, green); 1/1,000 (GFAP, HA610317, Rat, red)

Antigen retrieval: Not required

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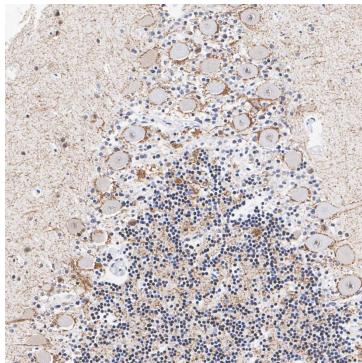


Fig5: Immunohistochemical analysis of paraffin-embedded human cerebellum tissue with Rabbit anti-GAD65 antibody (HA751102) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA751102) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

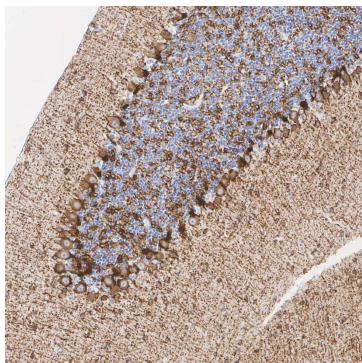


Fig6: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue with Rabbit anti-GAD65 antibody (HA751102) at 1/1,000 dilution.

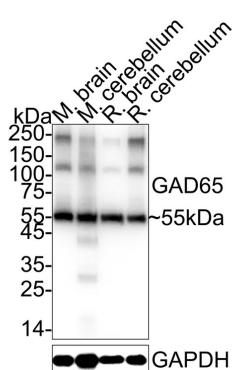
The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA751102) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



Fig7: Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-GAD65 antibody (HA751102) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA751102) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Fig8: Western blot analysis of GAD65 on different lysates with Rabbit anti-GAD65 antibody (HA751102) at 1/2,000 dilution.



Lane 1: Mouse brain tissue lysate (20 µg/Lane)
 Lane 2: Mouse cerebellum tissue lysate (20 µg/Lane)
 Lane 3: Rat brain tissue lysate (20 µg/Lane)
 Lane 4: Rat cerebellum tissue lysate (20 µg/Lane)

Predicted band size: 65 kDa
 Observed band size: 55 kDa
 Exposure time: 4 seconds; ECL: K1801;
 4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751102) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

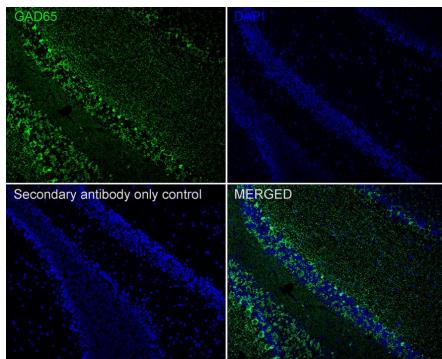


Fig9: Application: IF-tissue

Species: Mouse
 Site: Cerebellum
 Sample: Paraffin-embedded section
 Antibody concentration: 1:500

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

Background References

1. Budhram A et al. Clinical spectrum of high-titre GAD65 antibodies. *J Neurol Neurosurg Psychiatry*. 2021 Feb
2. Budhram A et al. Positive Predictive Value of Anti-GAD65 ELISA Cut-Offs for Neurological Autoimmunity. *Can J Neurol Sci*. 2023 Sep

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