Anti-GABA B Receptor 1 Antibody [PSH03-87] - BSA and Azide free

HA750912

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Cynomolgus monkey, Pig
Applications:	WB, IF-Tissue, IHC-P
Molecular Wt:	Predicted band size: 108 kDa
Clone number:	PSH03-87

Description: Gamma-aminobutyric acid B receptor, 1 (GABAB1), is a G-protein coupled receptor subunit encoded by the GABBR1 gene. GABAB1 is a receptor for Gamma-aminobutyric acid. Upon binding, GABAB1 will produce a slow and prolonged inhibitory effect. GABAB1 is one part of a heterodimer, which is the GABAB receptor, consisting of it and the related GABAB2 protein. The GABA(B) receptor 1 gene is mapped to chromosome 6p21.3 within the HLA class I region close to the HLA-F gene. Susceptibility loci for multiple sclerosis, epilepsy, and schizophrenia have also been mapped in this region. Alternative splicing of this gene generates 4 transcript variants. GABBR1 has been shown to interact with ATF4 and GABBR2.

Immunogen: Recombinant protein within human GABA B Receptor 1 aa 142-591 / 961.

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

Subcellular location: Cell membrane, Postsynaptic cell membrane, Cell projection, dendrite; Secreted.

Database links: SwissProt: Q9UBS5 Human | Q9WV18 Mouse | Q9Z0U4 Rat

Recommended Dilutions:

WB	1:5,000
IF-Tissue	1:50-1:200
IHC-P	1:1,000-1:20,000

Storage Buffer: PBS (pH7.4).

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

Purity: Protein A affinity purified.

Images

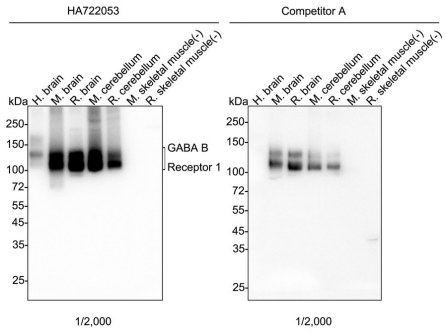

Fig1: Western blot analysis of GABA B Receptor 1 on different lysates with Rabbit anti-GABA B Receptor 1 antibody (HA750912) at 1/2,000 dilution and competitor's antibody at 1/2,000 dilution.

Lane 1: Human brain tissue lysate
Lane 2: Mouse brain tissue lysate (hot lysis)
Lane 3: Rat brain tissue lysate (no heat)
Lane 4: Mouse cerebellum tissue lysate (70℃ heat)
Lane 5: Rat cerebellum tissue lysate
Lane 6: Mouse skeletal muscle tissue lysate (no heat) (negative)
Lane 7: Rat skeletal muscle tissue lysate (no heat) (negative)

Notice: no heat means the lysate is not boiled.

Lysates/proteins at 40 µg/Lane.

Predicted band size: 108 kDa
Observed band size: 95-108 kDa

Exposure time: Lane 1-7 (left): 28 seconds; Lane 1-5 (right): 2 minutes 34 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 (HA750912) at 1/2,000 dilution and competitor's antibody at 1/2,000 dilution were used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

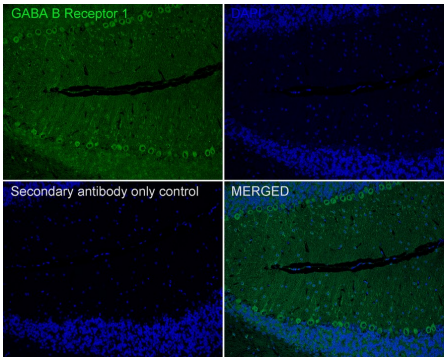

Fig2: Immunofluorescence analysis of paraffin-embedded mouse cerebellum tissue labeling GABA B Receptor 1 with Rabbit anti-GABA B Receptor 1 antibody (HA750912) at 1/50 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA750912, green) at 1/50 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

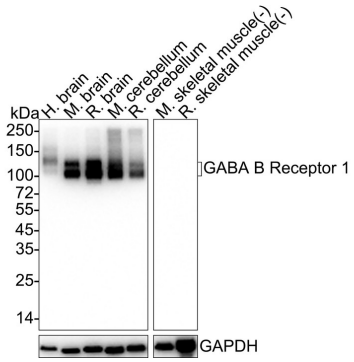

Fig3: Western blot analysis of GABA B Receptor 1 on different lysates with Rabbit anti-GABA B Receptor 1 antibody (HA750912) at 1/5,000 dilution.

Lane 1: Human brain tissue lysate (40 µg/Lane)
Lane 2: Mouse brain tissue lysate (no heat) (20 µg/Lane)
Lane 3: Rat brain tissue lysate (no heat) (20 µg/Lane)
Lane 4: Mouse cerebellum tissue lysate (70℃ heat) (20 µg/Lane)
Lane 5: Rat cerebellum tissue lysate (20 µg/Lane)
Lane 6: Mouse skeletal muscle tissue lysate (no heat) (negative) (20 µg/Lane)
Lane 7: Rat skeletal muscle tissue lysate (no heat) (negative) (20 µg/Lane)

Notice: no heat means the lysate is not boiled.

Predicted band size: 108 kDa
Observed band size: 95-108 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 (HA750912) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

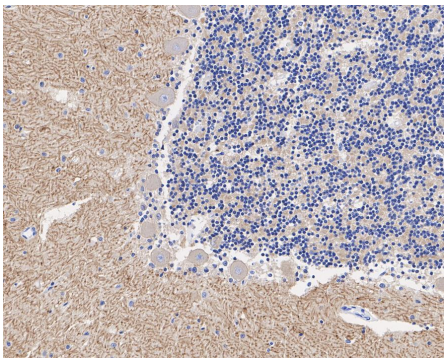

Fig4: Immunohistochemical analysis of paraffin-embedded human cerebellum tissue with Rabbit anti-GABA B Receptor 1 antibody (HA750912) at 1/20,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750912) at 1/20,000 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.

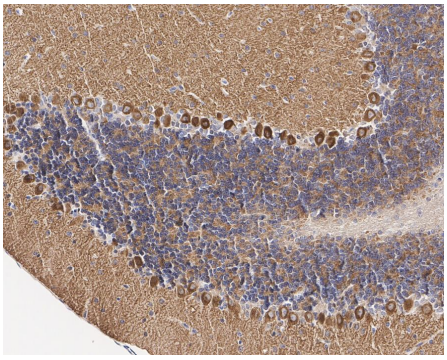

Fig5: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue with Rabbit anti-GABA B Receptor 1 antibody (HA750912) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750912) 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.

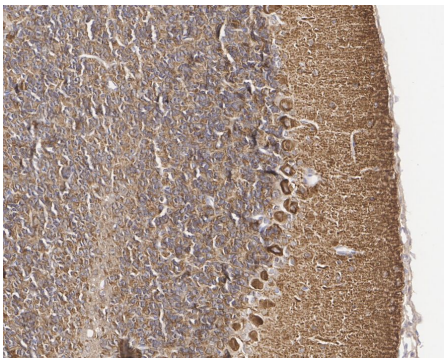

Fig6: Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-GABA B Receptor 1 antibody (HA750912) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750912) 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.

Background References

1. Shao L et al. The neurotransmitter receptor Gabbr1 regulates proliferation and function of hematopoietic stem and progenitor cells. Blood. 2021 Feb
2. Cediel ML et al. GABBR1 monoallelic de novo variants linked to neurodevelopmental delay and epilepsy. Am J Hum Genet. 2022 Oct