Anti-VGLUT2 Antibody [PSH10-54] - BSA and Azide free

HA751357

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse, Rat, Cynomolgus monkey, Pig
Applications:	WB, IHC-Fr, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 65 kDa
Clone number:	PSH10-54

Description: Predicted to enable L-glutamate transmembrane transporter activity and neurotransmitter transmembrane transporter activity. Involved in neurotransmitter loading into synaptic vesicle. Predicted to be located in synaptic vesicle. Predicted to be active in excitatory synapse. Predicted to be integral component of synaptic vesicle membrane.

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

Subcellular location: Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane, Synapse, synaptosome, Cell membrane.

Database links: SwissProt: Q8BLE7 Mouse | Q9JI12 Rat

Recommended Dilutions:

WB	1:2,000
IHC-Fr	1:500
IHC-P	1:2,000
IF-Tissue	1:500

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

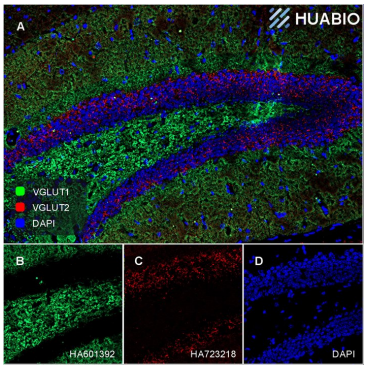

Fig1: Application: IHC-Fr

Species: Mouse

Site: Hippocampus

Sample: Frozen section

Antibody concentration: 1: 500 (VGLUT2, HA751357, red), 1:500 (VGluT1, HA601392, green)

Antigen retrieval: Not required

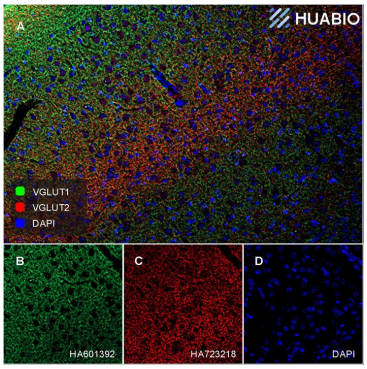

Fig2: Application: IHC-Fr

Species: Mouse

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1: 500 (VGLUT2, HA751357, red), 1:500 (VGluT1, HA601392, green)

Antigen retrieval: Not required

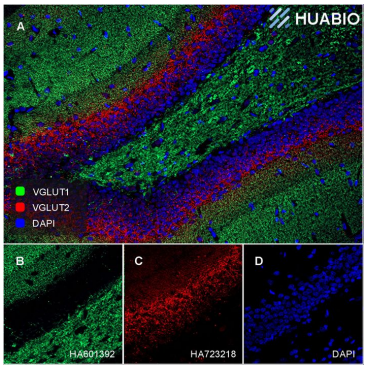

Fig3: Application: IHC-Fr

Species: Rat

Site: Hippocampus

Sample: Frozen section

Antibody concentration: 1: 500 (VGLUT2, HA751357, red), 1:500 (VGluT1, HA601392, green)

Antigen retrieval: Not required

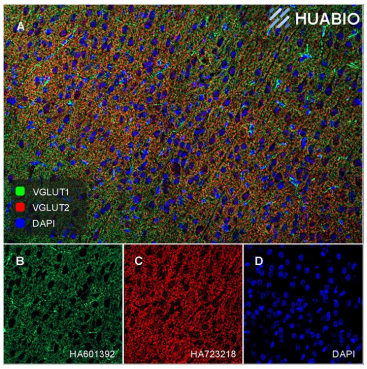

Fig4: Application: IHC-Fr

Species: Rat

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1: 500 (VGLUT2, HA751357, red), 1:500 (VGluT1, HA601392, green)

Antigen retrieval: Not required

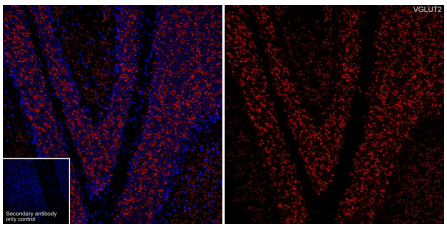

Fig5: Application: IHC-Fr

Species: Mouse

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1: 500

Antigen retrieval: Not required

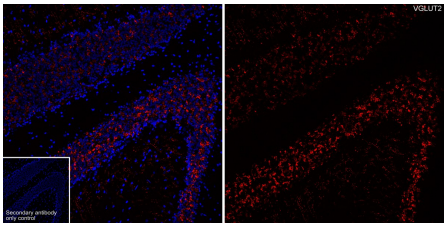

Fig6: Application: IHC-Fr

Species: Rat

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1: 500

Antigen retrieval: Not required

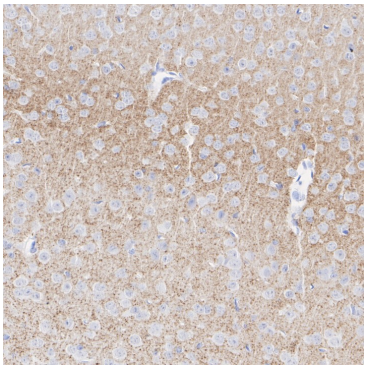

Fig7: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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 (HA751357) at 1/2,000 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.

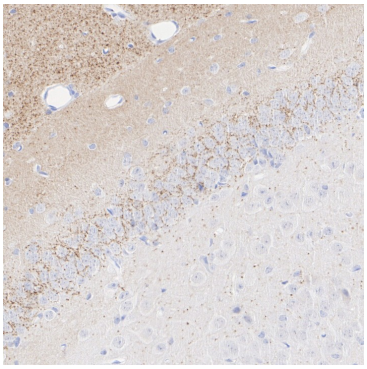

Fig8: Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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 (HA751357) at 1/2,000 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.

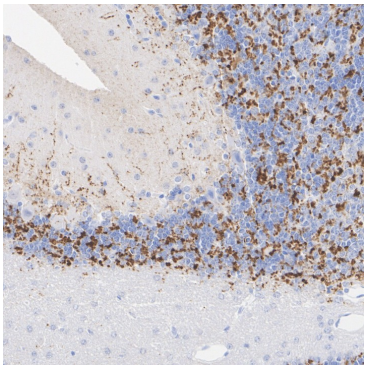

Fig9: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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 (HA751357) at 1/2,000 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.

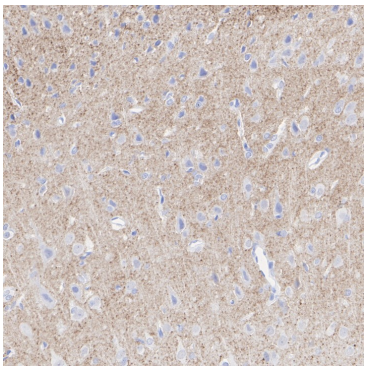

Fig10: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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 (HA751357) at 1/2,000 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.

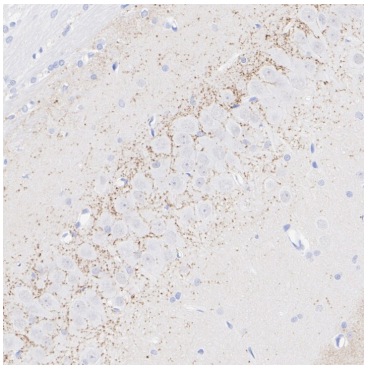

Fig11: Immunohistochemical analysis of paraffin-embedded rat hippocampus tissue with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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 (HA751357) at 1/2,000 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.

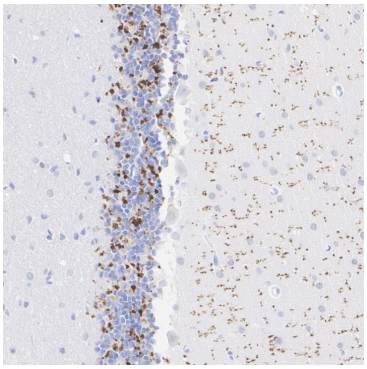

Fig12: Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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 (HA751357) at 1/2,000 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.

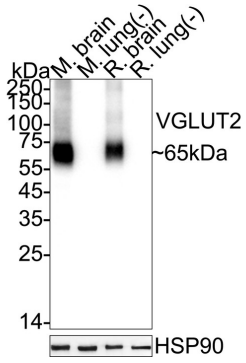

Fig13: Western blot analysis of VGLUT2 on different lysates with Rabbit anti-VGLUT2 antibody (HA751357) at 1/2,000 dilution.

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

Predicted band size: 65 kDa
Observed band size: 65 kDa

Exposure time: 20 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 (HA751357) at 1/2,000 dilution was used in primary antibody dilution at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

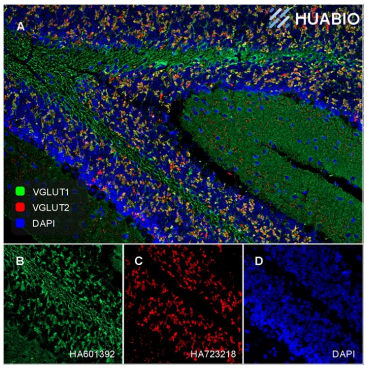

Fig14: Application: IF-tissue

Species: Mouse

Site: Cerebellum

Sample: Paraffin-embedded section

Antibody concentration: 1/500 (VGLUT2, HA751357, Rabbit, red); 1/500 (VGLUT1, HA601392, Rat, green)

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

Background References

1. Buck SA et al. Roles of VGLUT2 and Dopamine/Glutamate Co-Transmission in Selective Vulnerability to Dopamine Neurodegeneration. ACS Chem Neurosci. 2022 Jan
2. Zhang Y et al. VGluT2 neuron subtypes in the paraventricular thalamic nucleus regulate depression in paraquat-induced Parkinson's disease. J Hazard Mater. 2024 Jul