Anti-NPTX2 Antibody [PSH21-53] - BSA and Azide free

HA751800

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 47 kDa
Clone number:	PSH21-53

Description: Neuronal pentraxin-2 is a protein that in humans is encoded by the NPTX2 gene. This gene encodes a member of the family of neuronal pentraxins, synaptic proteins that are related to C-reactive protein. This protein is involved in excitatory synapse formation. It also plays a role in clustering of alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA)-type glutamate receptors at established synapses, resulting in non-apoptotic cell death of dopaminergic nerve cells.

Positive control: SH-SY5Y cell lysate, Mouse brain tissue lysate, Rat brain tissue lysate, mouse brain tissue, rat brain tissue.

Subcellular location: Secreted.

Database links: SwissProt: P47972 Human | O70340 Mouse | P97738 Rat

Recommended Dilutions:

WB	1:5,000
IHC-P	1:200

Storage Buffer: 1*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

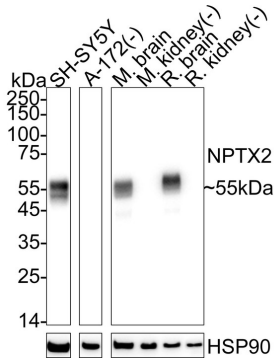

Fig1: Western blot analysis of NPTX2 on different lysates with Rabbit anti-NPTX2 antibody (HA751800) at 1/5,000 dilution.

Lane 1: SH-SY5Y cell lysate
Lane 2: A-172 cell lysate (negative)
Lane 3: Mouse brain tissue lysate
Lane 4: Mouse kidney tissue lysate (negative)
Lane 5: Rat brain tissue lysate
Lane 6: Rat kidney tissue lysate (negative)

Lysates/proteins at 15 µg/Lane.

Predicted band size: 47 kDa
Observed band size: 55 kDa

Exposure time: 10 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 (HA751800) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

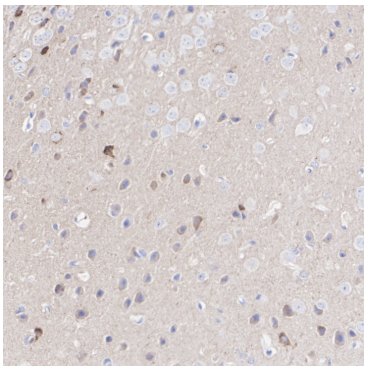

Fig2: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-NPTX2 antibody (HA751800) at 1/200 dilution.

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 (HA751800) at 1/200 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.

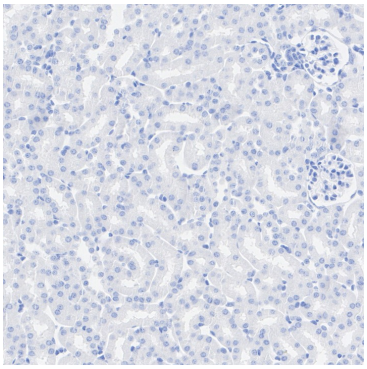

Fig3: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue (negative) with Rabbit anti-NPTX2 antibody (HA751800) at 1/200 dilution.

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 (HA751800) at 1/200 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.

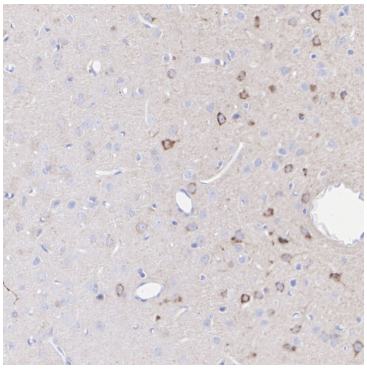

Fig4: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-NPTX2 antibody (HA751800) at 1/200 dilution.

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 (HA751800) at 1/200 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.

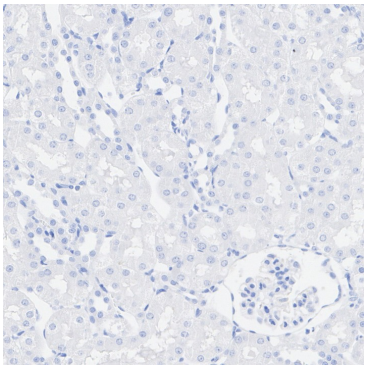

Fig5: Immunohistochemical analysis of paraffin-embedded rat kidney tissue (negative) with Rabbit anti-NPTX2 antibody (HA751800) at 1/200 dilution.

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 (HA751800) at 1/200 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. Hruska-Plochan M et al. A model of human neural networks reveals NPTX2 pathology in ALS and FTLD. Nature. 2024 Feb
2. Kang T et al. NPTX2 Promotes Epithelial-Mesenchymal Transition in Cutaneous Squamous Cell Carcinoma through METTL3-Mediated N6-Methyladenosine Methylation of SNAIL. J Invest Dermatol. 2023 Jun