Anti-Presenilin 1 Antibody [PSH08-49]

HA722995

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-P, IHC-Fr, IF-Tissue
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	PSH08-49

Description: Presenilin-1 (PS-1) is a presenilin protein that in humans is encoded by the PSEN1 gene. Presenilin-1 is one of the four core proteins in the gamma secretase complex, which is considered to play an important role in generation of amyloid beta (Aβ) from amyloid-beta precursor protein (APP). Accumulation of amyloid beta is associated with the onset of Alzheimer's disease. Presenilins are postulated to regulate APP processing through their effects on gamma secretase, an enzyme that cleaves APP. Also, it is thought that the presenilins are involved in the cleavage of the Notch receptor, such that they either directly regulate gamma secretase activity or themselves are protease enzymes. Multiple alternatively spliced transcript variants have been identified for this gene, the full-length natures of only some have been determined.

Immunogen: Synthetic peptide within human Presenilin 1 aa 1-50.

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

Subcellular location: Endoplasmic reticulum, Endoplasmic reticulum membrane, Golgi apparatus membrane, Cytoplasmic granule, Cell membrane, Cell projection, growth cone, Early endosome, Early endosome membrane, neuron projection, axon, Synapse.

Database links: SwissProt: P49768 Human | P49769 Mouse | P97887 Rat

Recommended Dilutions:

IHC-P	1:5,000
IHC-Fr	1:500
IF-Tissue	1:500-1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

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

Purity: Protein A affinity purified.

Images

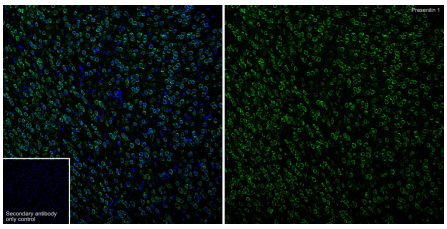

Fig1: Immunofluorescence analysis of frozen mouse brain tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. 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 (HA722995, green) at 1/500 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).

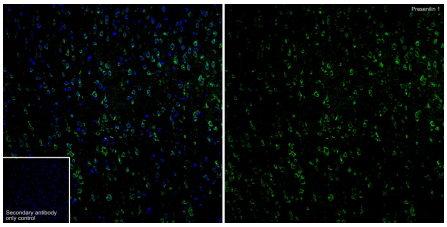

Fig2: Immunofluorescence analysis of frozen rat brain tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven. 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 (HA722995, green) at 1/500 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).

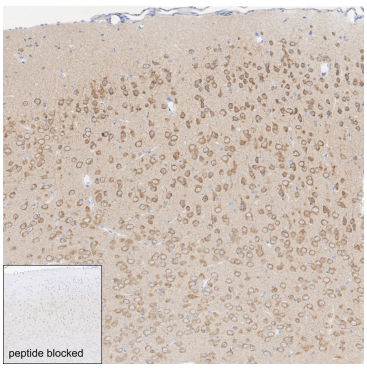

Fig3: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA722995) at 1/5,000 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.

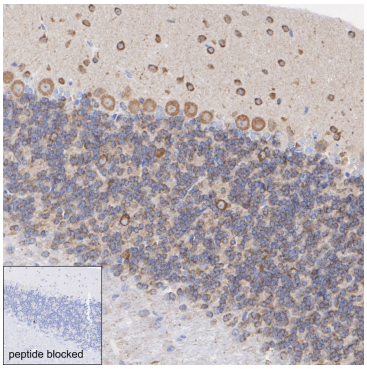

Fig4: Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA722995) at 1/5,000 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.

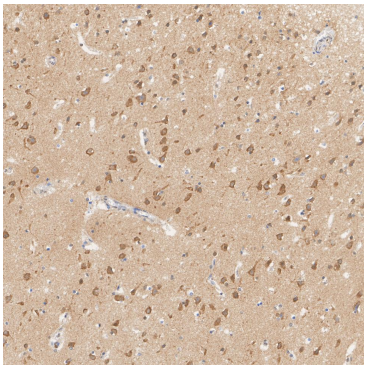

Fig5: Immunohistochemical analysis of paraffin-embedded human brain tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA722995) at 1/5,000 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.

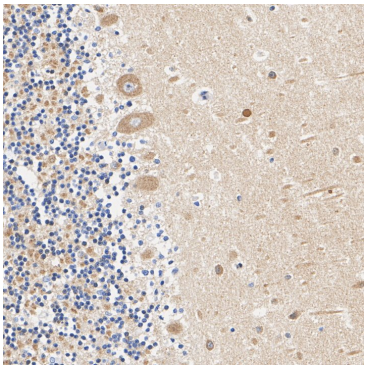

Fig6: Immunohistochemical analysis of paraffin-embedded human cerebellum tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA722995) at 1/5,000 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.

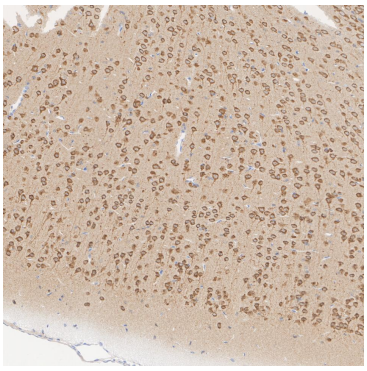

Fig7: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA722995) at 1/5,000 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.

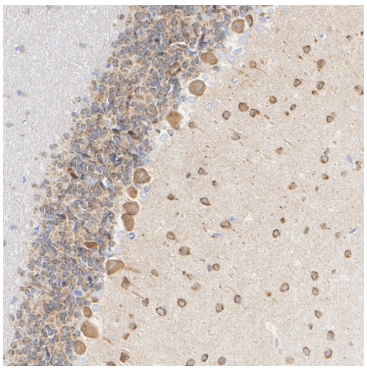

Fig8: Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-Presenilin 1 antibody (HA722995) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA722995) at 1/5,000 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. Yang Y et al. Presenilin-1 (PSEN1) Mutations: Clinical Phenotypes beyond Alzheimer's Disease. Int J Mol Sci. 2023 May
2. Gamez-Belmonte R et al. Epithelial presenilin-1 drives colorectal tumour growth by controlling EGFR-COX2 signalling. Gut. 2023 Jun