Anti-Presenilin 2 / AD5 Antibody [PSH05-18]

HA722243

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP
Molecular Wt:	Predicted band size: 50 kDa
Clone number:	PSH05-18

Description: Presenilin-2 is a protein that (in humans) is encoded by the PSEN2 gene. Alzheimer's disease (AD) patients with an inherited form of the disease carry mutations in the presenilin proteins (PSEN1; PSEN2) or the amyloid precursor protein (APP). These disease-linked mutations result in increased production of the longer form of amyloid-beta (main component of amyloid deposits found in AD brains). 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. Two alternative transcripts of PSEN2 have been identified. In melanocytic cells PSEN2 gene expression may be regulated by MITF.

Immunogen: Synthetic peptide within Human Presenilin 2 aa 300-400.

Positive control: HeLa cell lysate, HepG2 cell lysate, A549 cell lysate, 293T cell lysate, SH-SY5Y cell lysate, RAW264.7 cell lysate, Neuro-2a cell lysate, C2C12 cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, C6 cell lysate, human brain tissue lysate, mouse brain tissue lysate, rat liver tissue lysate.

Subcellular location: Endoplasmic reticulum membrane, Golgi apparatus membrane.

Database links: SwissProt: P49810 Human | Q61144 Mouse | O88777 Rat

Recommended Dilutions:

WB	1:1,000
IP	1-2μg/sample

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

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

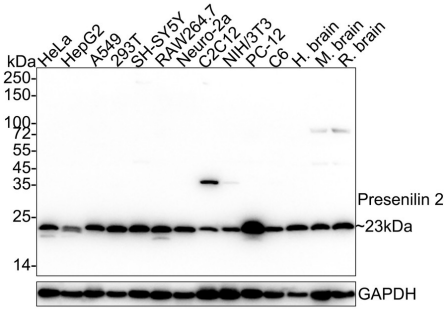

Fig1: Western blot analysis of Presenilin 2 / AD5 on different lysates with Rabbit anti-Presenilin 2 / AD5 antibody (HA722243) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: HepG2 cell lysate (20 µg/Lane)
Lane 3: A549 cell lysate (20 µg/Lane)
Lane 4: 293T cell lysate (20 µg/Lane)
Lane 5: SH-SY5Y cell lysate (20 µg/Lane)
Lane 6: RAW264.7 cell lysate (20 µg/Lane)
Lane 7: Neuro-2a cell lysate (20 µg/Lane)
Lane 8: C2C12 cell lysate (20 µg/Lane)
Lane 9: NIH/3T3 cell lysate (20 µg/Lane)
Lane 10: PC-12 cell lysate (20 µg/Lane)
Lane 11: C6 cell lysate (20 µg/Lane)
Lane 12: Human brain tissue lysate (40 µg/Lane)
Lane 13: Mouse brain tissue lysate (40 µg/Lane)
Lane 14: Rat liver tissue lysate (40 µg/Lane)

Predicted band size: 50 kDa
Observed band size: 23 kDa

Exposure time: 1 minute; 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 (HA722243) at 1/1,000 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.

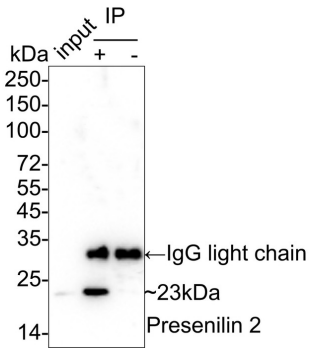

Fig2: Presenilin 2 / AD5 was immunoprecipitated from 0.2 mg HeLa cell lysate with HA722243 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA722243 at 1/1,000 dilution. Anti-Rabbit IgG for IP, AlpSdAbs® VHH(HRP) (025-100-005) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: HeLa cell lysate (input)
Lane 2: HA722243 IP in HeLa cell lysate
Lane 3: Rabbit IgG instead of HA722243 in HeLa cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 59 seconds; ECL: K1801

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

Background References

1. Barazzuol L et al. Unraveling Presenilin 2 Functions in a Knockout Zebrafish Line to Shed Light into Alzheimer's Disease Pathogenesis. Cells. 2023 Jan
2. Nam H et al. Presenilin 2 N141I mutation induces hyperactive immune response through the epigenetic repression of REV-ERBalpha. Nat Commun. 2022 Apr