

PSEN1 / Presenilin 1 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS11707**Specification****PSEN1 / Presenilin 1 Antibody (C-Terminus) - Product Information**

Application	IHC
Primary Accession	P49768
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53kDa KDa

PSEN1 / Presenilin 1 Antibody (C-Terminus) - Additional Information**Gene ID** 5663**Other Names**

Presenilin-1, PS-1, 3.4.23.-, Protein S182, Presenilin-1 NTF subunit, Presenilin-1 CTF subunit, Presenilin-1 CTF12, PS1-CTF12, PSEN1, AD3, PS1, PSNL1

Target/Specificity

a 23 amino acid peptide from near the carboxy terminus of human presenilin1

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

PSEN1 / Presenilin 1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

PSEN1 / Presenilin 1 Antibody (C-Terminus) - Protein Information**Name** PSEN1**Synonyms** AD3, PS1, PSNL1**Function**

Catalytic subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (amyloid- beta precursor protein) (PubMed: [15274632](http://www.uniprot.org/citations/15274632), PubMed: [10545183](http://www.uniprot.org/citations/10545183), PubMed: [10593990](http://www.uniprot.org/citations/10593990), PubMed: [10206644](http://www.uniprot.org/citations/10206644), PubMed: [10899933](http://www.uniprot.org/citations/10899933), PubMed: [10811883](http://www.uniprot.org/citations/10811883), PubMed: [12679784](http://www.uniprot.org/citations/12679784), PubMed: [12740439](http://www.uniprot.org/citations/12740439))

target="_blank">12740439, PubMed:25043039, PubMed:26280335, PubMed:30598546, PubMed:30630874, PubMed:28269784, PubMed:20460383). Requires the presence of the other members of the gamma-secretase complex for protease activity (PubMed:15274632, PubMed:25043039, PubMed:26280335, PubMed:30598546, PubMed:30630874). Plays a role in Notch and Wnt signaling cascades and regulation of downstream processes via its role in processing key regulatory proteins, and by regulating cytosolic CTNNB1 levels (PubMed:9738936, PubMed:10593990, PubMed:10899933, PubMed:10811883). Stimulates cell-cell adhesion via its interaction with CDH1; this stabilizes the complexes between CDH1 (E-cadherin) and its interaction partners CTNNB1 (beta-catenin), CTNND1 and JUP (gamma-catenin) (PubMed:11953314). Under conditions of apoptosis or calcium influx, cleaves CDH1 (PubMed:11953314). This promotes the disassembly of the complexes between CDH1 and CTNND1, JUP and CTNNB1, increases the pool of cytoplasmic CTNNB1, and thereby negatively regulates Wnt signaling (PubMed:9738936, PubMed:11953314). Required for normal embryonic brain and skeleton development, and for normal angiogenesis (By similarity). Mediates the proteolytic cleavage of EphB2/CTF1 into EphB2/CTF2 (PubMed:17428795, PubMed:28269784). The holoprotein functions as a calcium-leak channel that allows the passive movement of calcium from endoplasmic reticulum to cytosol and is therefore involved in calcium homeostasis (PubMed:25394380, PubMed:16959576). Involved in the regulation of neurite outgrowth (PubMed:15004326, PubMed:20460383). Is a regulator of presynaptic facilitation, spike transmission and synaptic vesicles replenishment in a process that depends on gamma-secretase activity. It acts through the control of SYT7 presynaptic expression (By similarity).

Cellular Location

Endoplasmic reticulum. Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Cytoplasmic granule. Cell membrane; Multi-pass membrane protein. Cell projection, growth cone. Early endosome. Early endosome membrane; Multi-pass membrane protein. Cell projection, neuron projection. Cell projection, axon {ECO:0000250|UniProtKB:Q4JIM4}. Synapse {ECO:0000250|UniProtKB:Q4JIM4}. Note=Translocates with bound NOTCH1 from the endoplasmic reticulum and/or Golgi to the cell surface (PubMed:10593990). Colocalizes with CDH1/2 at sites of cell-cell contact. Colocalizes with CTNNB1 in the endoplasmic reticulum and the proximity of the plasma membrane (PubMed:9738936). Also present in azurophil granules of neutrophils (PubMed:11987239). Colocalizes with UBQLN1 in the cell membrane and in cytoplasmic juxtanuclear structures called aggresomes (PubMed:21143716).

Tissue Location

Detected in azurophile granules in neutrophils and in platelet cytoplasmic granules (at protein

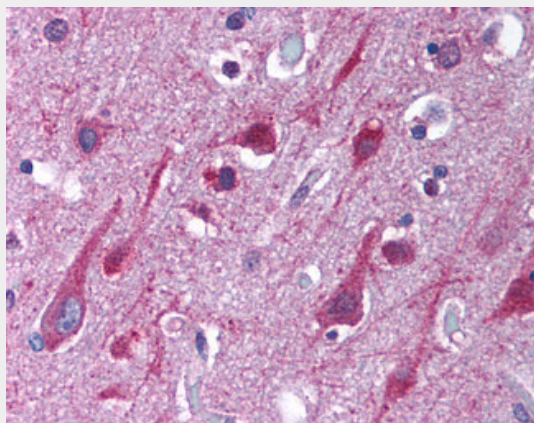
level) (PubMed:11987239) Expressed in a wide range of tissues including various regions of the brain, liver, spleen and lymph nodes (PubMed:7596406, PubMed:8641442, PubMed:8574969).

PSEN1 / Presenilin 1 Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PSEN1 / Presenilin 1 Antibody (C-Terminus) - Images



Anti-PSEN1 / Presenilin 1 antibody IHC of human brain, cortex.

PSEN1 / Presenilin 1 Antibody (C-Terminus) - Background

Probable catalytic subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (beta-amyloid precursor protein). Requires the other members of the gamma-secretase complex to have a protease activity. May play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane. Stimulates cell-cell adhesion through its association with the E-cadherin/catenin complex. Under conditions of apoptosis or calcium influx, cleaves E-cadherin promoting the disassembly of the E-cadherin/catenin complex and increasing the pool of cytoplasmic beta-catenin, thus negatively regulating Wnt signaling. May also play a role in hematopoiesis.

PSEN1 / Presenilin 1 Antibody (C-Terminus) - References

Sherrington R., et al. Nature 375:754-760(1995).
Sahara N., et al. FEBS Lett. 381:7-11(1996).
Powell C.S., et al. Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases.
Rowen L., et al. Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases.
Kang L., et al. Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.