

## Rabbit polyclonal antibody to Presenilin 1 loop region: IgG

<b>Catalogue No.:</b>	R-1680-500
<b>Description:</b>	Presenilin-1 (PSEN1) is a multi-pass membrane protein and component of the gamma-secretase complex. PSEN1 is thought to play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane. It may also play a role in hematopoiesis. Defects in PSEN1 are a cause of Alzheimer disease type 3 (AD3), a familial early-onset form of Alzheimer disease (Ref:SWISS-Prot).
<b>Batch No.:</b>	See product label
<b>Unit size:</b>	500 ug
<b>Antigen:</b>	A synthetic peptide (GDPEAQRRVSKNSKYNA-C) corresponding to human PS1 [301-317] in the loop region conjugated via additional C-terminal Cys to Diphtheria toxoid.
<b>Antibody Type:</b>	Polyclonal
<b>Other Names:</b>	Presenilin 1; PS-1; Protein S182; PS1-CTF12; PSEN1; AD3; PS1; PSNL1
<b>Produced in:</b>	Rabbit
<b>Applications:</b>	Western Blot. Suggested dilution of 1:1,000 is recommended for WB. Full length presenilin 1 (467 aa) has relative MW of about 45 kDa, with this antibody most commonly detected as cleaved CTF of 19 kDa. Human or mouse brain samples commonly prepared with reducing agent (50mM DTT), urea (2.3 M), SDS (1.5%) in 62.5 mM Tris-HCL pH 6.8 sample buffer (without boiling) heating to 50 C for 15 min. Biosensis recommends that the optimal working dilution should be determined by the end user.
<b>Specificity:</b>	Confirmed by Western blotting using transfected cells, presenilin 1 knock-out mouse cells and mouse and human brain.
<b>Species Against:</b>	Human; mouse; rat; guinea pig. Presenilin proteins are highly conserved, so cross-reactivity with other species is expected.
<b>Form:</b>	Lyophilized from PBS, pH 7.4. Contains no preservative.
<b>Reconstitution:</b>	Reconstitute in 500 uL of sterile water. Centrifuge to remove any insoluble material.
<b>Storage:</b>	Short term storage at 2-8C for one week. At -20C as an undiluted liquid for up to 12 months.
<b>Expiry Date:</b>	12 months after purchase
<b>References:</b>	<p>Culvenor, J.G., Ilaya, N.T., Ryan, M.T., Canterford, L., Hoke, D., Williamson, N.A., McLean, C.A., Masters, C.L., and Evin, G. (2004) Characterization of Presenilin complex from mouse and human brain using Blue Native gel electrophoresis reveals high expression in embryonic brain and minimal change in complex mobility with Presenilin mutations. <i>Eur. J. Biochem.</i> 271, 375-385.</p> <p>Ilaya, N.T., Evin, G., Masters, C.L., and Culvenor, J.G. (2004) Nicastrin expression in mouse peripheral tissues is not co-ordinated with Presenilin and is high in muscle. <i>J. Neurochem.</i> 91, 230-237.</p> <p>3. Beher, D., Fricker, M., Nadin, A., Clarke, E.E., Wrigley, J.D.J., Li, Y.-M., Culvenor, J.G., Masters, C.L., Harrison, T., and Shearman, M.S. (2003) In vitro Characterization of the</p>

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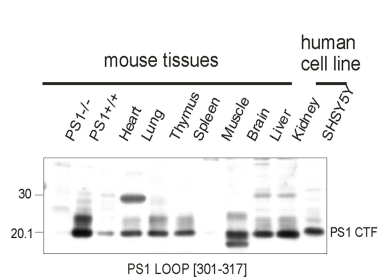
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Presenilin-dependent  $\gamma$ -secretase complex using a novel affinity ligand. *Biochem.* 42, 8133-8142.

Evin, G., Smith, M.J., Tziotis, A., McLean, C., Canterford, L., Sharples, R.A., Cappai, R., Weidemann, A., Beyreuther, K., Cotton, R.G.H., Masters, C.L., and Culvenor, J.G. (2002) Alternative transcripts of Presenilin-1 associated with Frontotemporal Dementia. *NeuroReport* 13, 917-921.

Evin, G., Sharples, R.A., Weidemann, A., Reinhard, F.B.M., Carbone, V., Culvenor, J.G., Holsinger, R.M.D., Sernee, M.F., Beyreuther, K., and Masters, C.L. (2001) Aspartyl protease inhibitor pepstatin binds to the presenilins of Alzheimer's disease. *Biochem.* 40, 8359-8368.



Western Immunoblotting of mouse and human Presenilin 1 protein in mouse cell line extracts, various mouse tissues and a human cell line. Membrane proteins were prepared and loaded as 20  $\mu$ g protein per lane. Crude anti-PS1 loop antibody used at 1:1000.

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