

Publication

β -amyloid peptide decreases membrane fluidity

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Author(s) Müller, W E; Koch, S; Eckert, A; Hartmann, H; Scheuer, K

Author(s) at UniBasel [Eckert, Anne](#) ;

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The beta-amyloid peptide-25-35 (beta A25-35) decreases the fluidity of mouse brain membranes in a concentration-depending fashion. First effects were already seen at a beta A25-35 concentration of 100 nmol/l. beta-Amyloid peptide(1-40) was similarly active. beta A25-35 also decreases the fluidity of human lymphocyte membranes and of membranes from the cortex, hippocampus, striatum, and cerebellum of the rat, although the effects in the rat cerebellum are only weak. Scrambled beta A25-35 when investigated under similar conditions showed no effects on membrane fluidity. It is suggest that the effect on cellular calcium-signalling but also the neurotoxic properties of beta-amyloid might be the result of its concentration depending effects on membrane properties.

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