

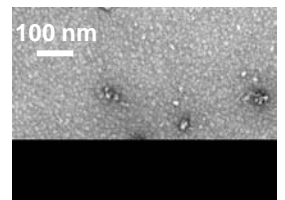
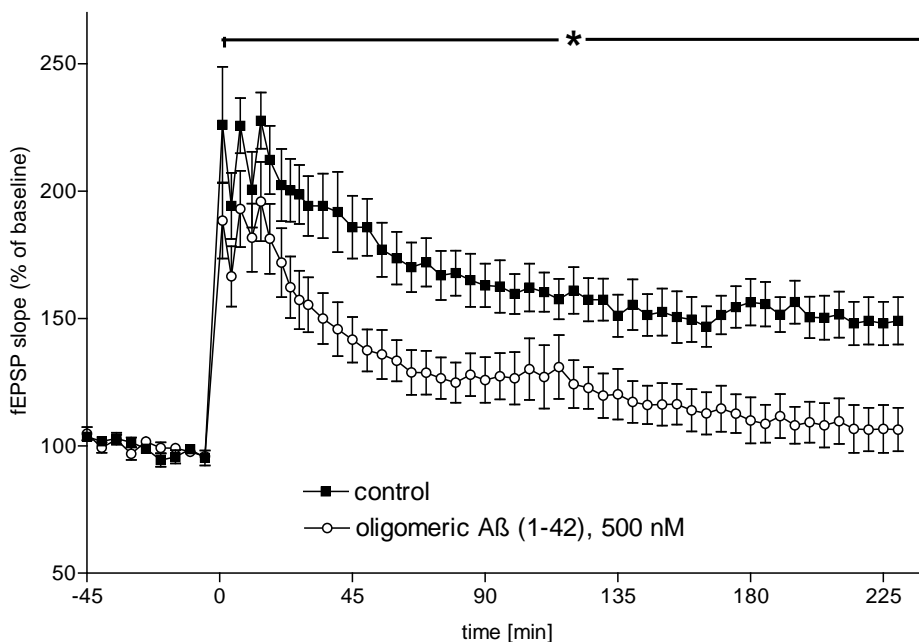
Electrophysiological drug testing of compounds for early Alzheimer's disease: A β and hippocampal LTP

Scope of application

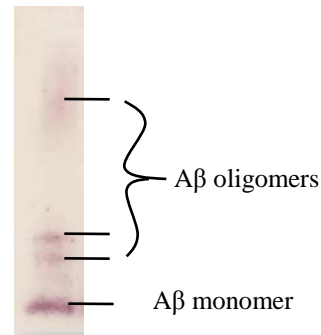
- Evaluation of the protective potential of drugs against the detrimental effect of acutely applied beta amyloid (A β) oligomers on hippocampal LTP
- Testing the LTP course in hippocampal slices of treated and untreated transgenic AD mice models (e.g. 5x FAD)

Impairment of Long-term potentiation (LTP) by A β oligomers

Application of 500 nM A β (1-42) oligomers causes a significant disruption of LTP. That phenomenon is likely to be a model of early AD stages (Selkoe DJ, Behav Brain Res. 2008;192:106-13). Thus, the pharmacological intervention of the A β mediated LTP impairment is a reasonable approach to evaluate novel AD therapeutics.



EM microscopy of A β (1-42) oligomer preparation



SDS PAGE of A β (1-42) oligomer preparation