

to elicit LTP. LTP was induced by stimulation of Schaffer collateral axons with four high frequency theta burst stimulus trains of 10×100 Hz/5 pulse bursts each, applied at an inter-burst interval of 200 ms. Each train was 2 seconds in duration, and trains were applied 15 seconds apart. The signals were recorded using a Multiclamp 700B amplifier and digitized with a Digidata 1322 (Axon Instruments, USA). Data were analyzed using pClamp software (version 9, Axon Instruments) on an IBM-compatible personal computer.

Results

[00264] As shown in Figure 2, Compound X tested at 1 μ M increased long-term potentiation after high frequency stimulation of rat Schaffer collateral-evoked NMDA e.p.s.c.s recorded in CA1 pyramidal neurons.

Table 4. Additional Biological Data

Compound	MK-801 Glycine Site Binding Assay: Rat Cortex EC50 (M)	LTP: LTP Augmentation (%)	LTP: LTP Concentration (μ M)	LTP: LTP Significance, S or NS
25-FNL-38	3.313E-09			
25-FNL-2	2.002E-08			
25-FNL-10	1.188E-12	90	1	NS
25-FNL-14	6.133E-11	120	1	NS
25-FNL-33	1.89E-08	140	1	S

EQUIVALENTS

[00265] Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific embodiments of the invention described herein. Such equivalents are intended to be encompassed by the following claims.

INCORPORATION BY REFERENCE

[00266] The entire contents of all patents, published patent applications, websites, and other references cited herein are hereby expressly incorporated herein in their entireties by reference.