



**Figure S1. The new dual “ $A_2ARs$ ” antagonist, P626, did not affect basal synaptic transmission nor PPF ratio in the CA1 region of rat hippocampus.** (A) Averaged time course of fEPSP slope under basal synaptic transmission, before and during the application of P626 (200 nM, n=13 slices taken from 8 animals). (B) Pooled data of fEPSP slope (mean  $\pm$  SEM), expressed as percentage of respective baseline measured 5 min before and during the last 5 min of the application of P626. (C) The graph shows pooled data (mean  $\pm$  SEM) of PPF, quantified as the ratio (P2/P1) between the slope of the fEPSP elicited by the second (P2) and the first (P1) stimuli. P2/P1 ratio is evaluated before (Ctrl) or 20 min after the application of P626 (200 nM, n=8). Paired columns refer to data collected from the same slice, before (Ctrl) or after the dual “ $A_2ARs$ ” antagonist, P626, application.