



SUPPLEMENTARY FIG. S8. Antagonists of σ 1Rs promote the uncoupling of MOR activity from the negative control of glutamate NMDARs. Antagonists of σ 1Rs promote the uncoupling of MOR activity from the negative control of glutamate NMDARs. Antagonists of σ 1Rs such as S1RA facilitate NR1 C0 binding with Ca²⁺-CaM to inhibit NMDAR calcium fluxes, indicated by the framed NMDAR without *asterisks*. In the absence of MOR regulation of PLCs, Ca²⁺-CaM binding further reduces calcium levels in the NMDAR environment, promoting the subsequent release of calcium-depleted CaM from NR1 subunits. In these circumstances, MOR-HINT1 binds with high affinity to NR1 subunits being observed as a time-dependent increase in MOR-NR1 association. In PAG synaptosomes derived from mice treated with only S1RA, the σ 1R antagonist produced no other noticeable changes in the other molecular parameters evaluated. Amino acid charge, see key in Fig. 3C.