Supplementary information

Dnmt3a2: a hub for enhancing cognitive functions

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Running title: Dnmt3a2 as a target for cognitive enhancers
Supplementary Figure 1. rAAV-dependent expression is restricted to the dorsal hippocampus. Representative pictures of GFP expression and Hoechst staining of brain slices obtained from mice injected with Dnmt3a2-shRNA. Similar patterns of transgene expression are obtained for the various viral vectors used in this study. Expression occurs only in dorsal hippocampus and was never observed in the ventral hippocampus. Scale bar represents 100 µm.
Supplementary Figure 2. Tamoxifen administration has no effect on fear extinction memory.
Schematic representation of the experimental procedure. Fear extinction training and testing of mice injected (i.p.) with vehicle (n=7) or tamoxifen (n=7). E indicates 5 minutes time blocks.
**Supplementary Figure 3.** Representative pictures of immunohistochemical analysis of brain slices from mice co-injected with *Dnmt3a2*-shRNA and *HA-Dnmt3a2* viral vectors. GFP is expressed in neurons infected with *Dnmt3a2*-shRNA and HA-Dnmt3a2 expression is detected by HA immunostain. Scale bar represents 100 µm.