



**Figure 1.** *CaMKII*  $\delta$  regulates *CaMKII*  $\alpha$  activity in the hippocampus. **A**, Schematic of the *CaMKII* holoenzyme structure and phosphorylation sites. **B**, Western blot analysis of *CaMKII* isoforms in hippocampal regions CA1, CA2, CA3, and dentate gyrus. **C**, Western blot analysis of phosphorylated *CaMKII* isoforms. **D**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$ . **E**, Western blot analysis of phosphorylated *CaMKII*  $\delta$ . **F**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$ . **G**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **H**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **I**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **J**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **K**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **L**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **M**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **N**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **O**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **P**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **Q**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **R**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **S**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **T**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **U**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **V**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **W**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **X**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **Y**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor. **Z**, Western blot analysis of phosphorylated *CaMKII*  $\alpha$  in the presence of *CaMKII*  $\delta$  and a *CaMKII* inhibitor.