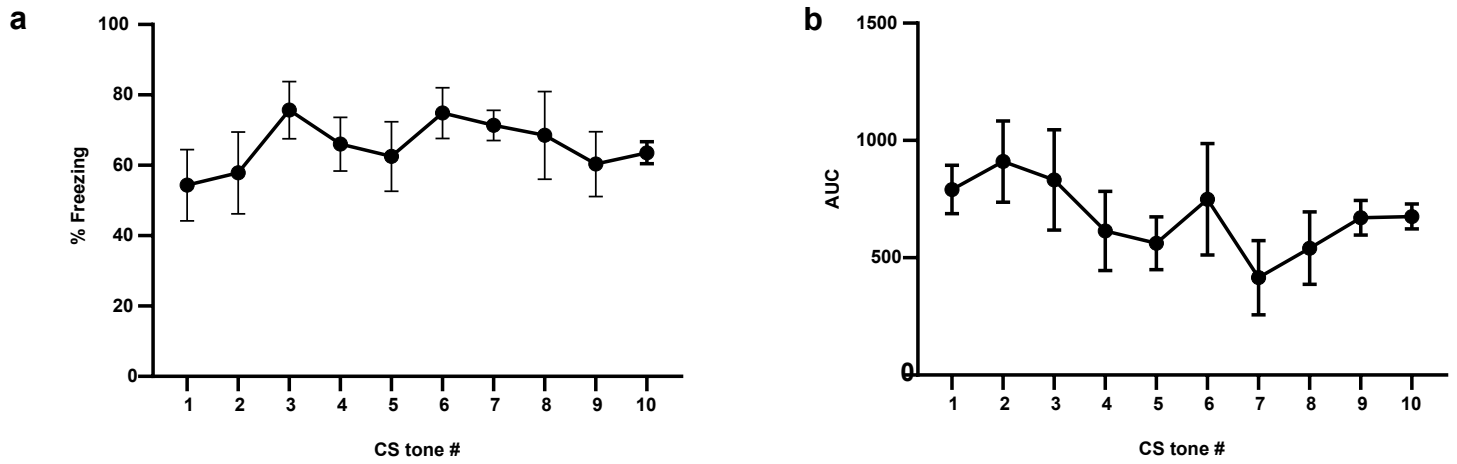
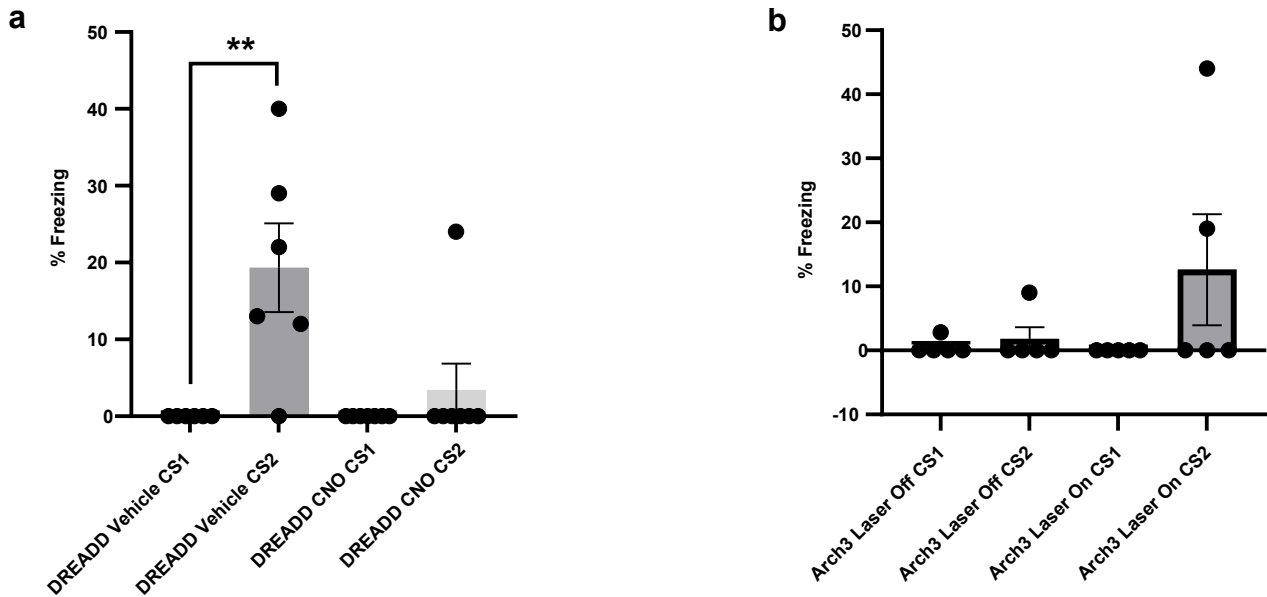


Fear recall

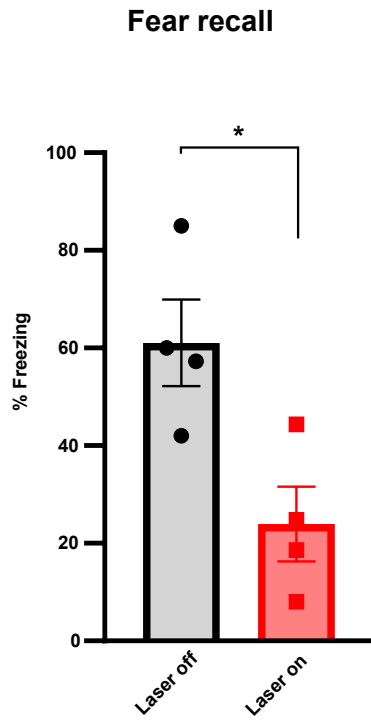


Suppl Fig. 1. Freezing and GRABNE fluorescence throughout the recall. **a** Percentage time freezing in response to the 10 recall tones (one-way ANOVA $F(9, 54) = 0.69$, $p = 0.71$; $n = 6$ mice). **b** Change of GRABNE fluorescence, expressed as AUC across the 10 recall tones (one-way ANOVA $F(9, 54) = 0.93$, $p = 0.50$; $n = 6$ mice). Data are presented as mean $\pm$ SEM.

Fear conditioning



Suppl Fig. 2. Freezing response during fear conditioning. **a** Percentage time freezing in response to the two conditioning tones in DREADD hM4Di/CNO mice compared to DREADD hM4Di/vehicle mice (two-way ANOVA followed by Sidaks test: treatment factor ($F(1, 22) = 12.37$, $P=0.0019$), viral expression factor ($F(1, 22) = 6.037$, $P=0.0224$), interaction factor ($F(1, 22) = 6.037$, $P=0.0224$); DREADD vehicle CS1 vs CS2, $p = 0.001$; DREADD CNO CS1 vs CS2, $p = 0.69$; $n = 7$ mice treated with hM4Di/CNO, $n = 6$ mice treated with hM4Di/vehicle. **b** Percentage time freezing in response to the two conditioning tones in Arch3-laser on mice versus Arch3-laser off mice (two way Anova followed by Sidaks test: laser factor ($F(1, 16) = 1.332$, $P=0.2654$), treatment factor ($F(1, 16) = 2.433$, $P=0.1383$), interaction factor ($F(1, 16) = 1.639$, $P=0.2186$); $n=5$ mice treated with Arch3-laser on, $n = 5$ mice treated with Arch3-laser off. Data are presented as mean $\pm$ SEM.



Suppl Fig. 3. Optogenetic inhibition of LC axons in the CB during recall reduces the freezing response to tones (two sided t-test, * $p = 0.039$; $n = 4$ mice). Data are presented as mean $\pm$ SEM.