Fig. S3: CNO-induced neural activity cannot be used alone as a conditioned stimulus. $hM_3D_q{}^{fos}$ n = 4, control n = 6 Repeated measures ANOVA context A F(1,6) = 0.028, p = 0.873 context B F(1,6) = 0.336, p = 0.583.
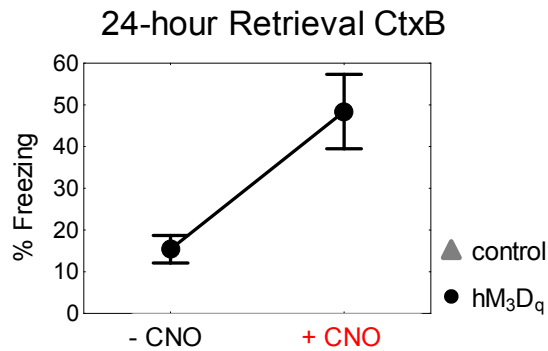

Fig. S4: To ensure that CNO-induced artificial activity during learning is incorporated into the memory representation and does not result in a low level ceiling effect for memory retrieval we repeated the experiment presented in Fig 2B and S1. hM3D^{fos} mice that failed to show remote memory recall as described in Fig 4A were re-exposed to a novel context A and fear conditioned the following day in the presence of CNO. When tested 24-hours later mice still show impaired memory for ctxB, but this impairment is now rescued by injection of CNO. hM3D^{fos} n = 8. Student's t-test t = -3.47, p = 0.00375.