



Figure 5-figure supplement 1. The effect of DIO on AgRP neuronal responses to CCK and ghrelin is dose-dependent.

(A and B) Calcium signal from AgRP neurons in fasted control (A) and DIO (B) mice treated with CCK 10 μ g/kg IP at baseline (black) and after 6 weeks on chow or HFD (red). (n = 4-7 mice per group).

(C) Peri-injection heatmaps depicting $\Delta F/F$ during photometry recording in individual DIO mice from (B) at baseline (left) and after 6 weeks on HFD (right).

(D) Quantification of $\Delta F/F$ from (A) and (B) showing area under the curve (AUC) for 20 min after injection.

(E and F) Calcium signal from AgRP neurons in ad libitum fed control (E) and DIO (F) mice treated with ghrelin 0.5 mg/kg IP at baseline (black) and after 6 weeks on chow or HFD (red). (n = 10-13 mice per group).

(G) Peri-injection heatmaps depicting $\Delta F/F$ during photometry recording in individual DIO mice from (F) at baseline (left) and after 6 weeks on HFD (right).

(H) Quantification of $\Delta F/F$ from (E) and (F) showing area under the curve (AUC) for 30 min after injection.

(I) Change in $\Delta F/F$ (response after 6 weeks HFD exposure minus response at baseline) in fasted DIO animals treated with CCK plotted against the weight gain of individual animals. $R^2 = 0.103$, $p = 0.28$. (n = 13 mice).

(A,B,E,F) Traces represent mean \pm SEM.

(D,H) Lines denote individual mice. Error bars represent mean \pm SEM.