



Extended Data Figure 4. No changes in fluorescent signals were detected in EYFP-expressing neurons during male mating.

Fluorescent signals were recorded via implanted optic fibers during male mating in *Calb1-Cre* male mice injected with AAVs encoding Cre-Off or Cre-On EYFP in the POA to label *Calb1*⁺ (a, top row) and *non-Calb1* neurons (c, middle row), or in *Pomc-Cre* male mice (C57BL/6 background) injected with AAVs encoding Cre-On EYFP in the ARC to label *Pomc*⁺ neurons (e, bottom row). $\Delta F/F$ values corresponding to the indicated behaviors (color coded, labelled on the top) were plotted accordingly (b, d, f). n = 5 males for *Calb1*⁺ group, 6 males for *non-Calb1* group, and 3 males for *Pomc*⁺ group.