



Supplementary Figure S5 Gonadotropin and ovarian responses to repeated KP-54 administration in control rats. In the *upper panels*, we present LH and FSH responses to daily KP-54 administration (100 µg/rat/day) or vehicle for a 5-day period (1D to 5D) in control cycling rats ($N = 7$). Gonadotropin levels were monitored each day, before (0) and at 60, 120 and 240 min after KP-54 injection. In the *lower panels*, the effects of daily administration of KP-54 for 5 days on the number of ovarian follicles and fresh corpora lutea in cyclic adult rats. While KP-54 treatment tended to increase the total number of >200 and >350 µm follicles, it also caused a rise in the percentage of large atretic follicles and a decrease in the number of preovulatory follicles (>450 µm) and fresh corpora lutea. In addition to quantitative analyses (*left panels*), in the *right panels*, we show micrographs from representative ovarian sections immunostained for the proliferating cell nuclear antigen (PCNA) and counterstained with hematoxylin. Vehicle-treated rats (**A–C**) show healthy mid-sized (msF) and large antral (AF) follicles, as well as functional corpora lutea (FCL, characterized by high proliferative activity) and regressing corpora lutea (RCL, lacking proliferative activity). In KP-54-treated rats (**D–F**), abundant healthy mid-sized (msF) and atretic large antral follicles (AtF) are detected, as well as regressing (RCL) corpora lutea of the previous cycles, but scarce functional (FCL) corpora lutea, some of them showing entrapped oocytes (arrow in **F**). Each histogram represents the mean \pm SEM. Data were analyzed by Student *t* tests ($*P < 0.05$, $**P < 0.01$, $***P < 0.001$ versus control rats treated with vehicle).