



Supplementary Figure S3 Validation and initial pharmacological studies in PWA rats as a suitable PCOS model. Phenotypic characterization of the PWA model, generated in this initial set of studies by continuous DHT administration via a silastic capsule containing 7.5 mg DHT. In panel (A), body weight (BW), basal LH, ovarian (O/W) and uterus weight (U/W), as well as actual DHT levels at the end of the 90-day treatment period, are shown in a representative subset of PWA 7.5 animals ($N = 10$). In panels (B) and (C), LH and FSH responses to repeated KP-54 administration are presented at Days 1, 4 and 7 after initiation of KP-54 treatments (100 µg/kg, daily s.c. injections) ($N = 10$). For comparative purposes, acute LH and FSH responses to a single bolus of KP-54 in control female rats are also shown. Note the nearly undetectable basal LH levels, and the severely blunted LH responses to KP-54 in this 7.5-mg DHT PWA model, despite enhanced FSH responses. Finally, in panel (D), ovarian responses to daily administration of KP-54 for 7 days in this PWA model are shown ($N = 5$). Repeated KP-54 administration resulted in trophic ovarian responses, including a decrease in the number of atretic follicles and an increase in the number of healthy follicles of >350 µm of diameter, but did not rescue ovulation. Blue dotted lines represent the mean values obtained in control, non-androgenized female rats, used as reference. In all panels, each histogram represents the mean \pm SEM. Data were analyzed by Student t tests (in panel A, $***P < 0.001$ versus control group; in panel D, $*P < 0.05$, $**P < 0.01$, $***P < 0.001$ versus PNA rats treated with vehicle).