



**Supplementary Figure S3 Time- and dose-dependent induction of endoplasmic reticulum (ER) stress by testosterone in mouse ovarian granulosa cells (GCs).** (A) Real-time qPCR results for the ER stress markers *GRP78*, *XBP1s* and *CHOP* in GCs treated with 10 μM testosterone (T) for 0, 12, 24 and 36 h. The data are presented as means ± SEMs. \* $P < 0.05$ , \*\* $P < 0.01$ . (B) Western blot results showing the protein levels of the unfolded protein response (UPR) sensor proteins p-IRE1α, p-EIF2α and GRP78 in GCs treated with 10 μM testosterone for 0, 1, 6, 12, 24, 36 and 48 h. (C) The protein expression levels in GCs treated with 0, 10, 50 or 250 μM testosterone for 24 h were detected by western blot analysis. (D) Effects of the p38 MAPK inhibitor SB203580 on the protein levels of total p38 MAPK, p-p38 MAPK and GRP78 during treatment with 10 μM testosterone for 24 h.