

**S 1. Hormone levels in serum from male rats by group (mean±SD)**

Group	Dihydrotestosterone (pg/ml)	Testosterone (ng/ml)	Estradiol (pg/ml)
Sham control rats	162.49 ± 24.25	0.86 ± 0.07	44.16 ± 9.38
CIA rats	147.47 ± 28.90	0.74 ± 0.10*	39.42 ± 9.98
CIA rats with castration	76.07 ± 5.34**	0.39 ± 0.36**	14.15 ± 4.88**
Castrated CIA with YJB treatment	72.01 ± 3.57**	0.40 ± 0.20**	15.13 ± 4.25**

\*  $p < 0.05$ , \*\*  $p < 0.01$  vs. sham control group