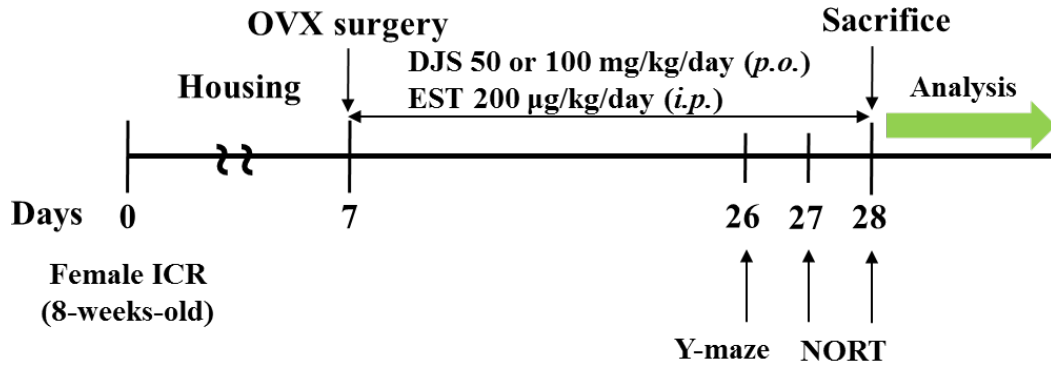


### Additional file 1



**Additional file 1.** Experimental design for surgery, drug administration and behavioral test. OVX: ovariectomized; DJS: dangguijakyak-san; EST: 17 $\beta$ -estradiol; NORT: novel object recognition test.