

Supplementary material

Flutamide induces uterus and ovary damage in the mouse via apoptosis and excessive autophagy of cells following triggering of the unfolded protein response

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Table S1 The mRNA abundance of all the genes were measured (n=12)

genes	uterus		ovary		
	flutamide	control	flutamide	control	
UPR related genes	<i>Grp78</i>	5.85±1.52*	1.00±0.01	7.93±0.78*	1.00±0.01
	<i>Perk</i>	18.90±3.76*	1.00±0.01	33.93±6.46*	1.00±0.01
	<i>Irel</i>	92.06±19.1*	1.00±0.01	11.22±3.12*	1.00±0.01
	<i>Atf6</i>	31.64±4.95*	1.00±0.01	34.69±6.17*	1.00±0.01
	<i>eIF2α</i>	4.73±1.26*	1.00±0.01	1.09±0.41	1.00±0.01
	<i>Atf4</i>	9.20±3.68*	1.00±0.01	4.94±1.14*	1.00±0.01
	<i>Xbp1</i>	15.46±2.97*	1.00±0.01	7.06±1.33*	1.00±0.01
	<i>Chop</i>	16.38±2.54*	1.00±0.01	3.24±1.23*	1.00±0.01
autophagy related genes	<i>Ulk1</i>	2.06±0.21*	1.00±0.01	0.17±0.06#	1.00±0.01
	<i>Atg3</i>	30.06±5.94*	1.00±0.01	4.83±0.97*	1.00±0.01
	<i>Lc3b</i>	39.15±4.72*	1.00±0.01	0.04±0.01#	1.00±0.01
	<i>Beclin1</i>	1.84±0.29*	1.00±0.01	1.08±0.37	1.00±0.01
	<i>Atg7</i>	15.30±2.46*	1.00±0.01	3.15±0.83*	1.00±0.01
apoptosis related genes	<i>Ask1</i>	10.70±2.01*	1.00±0.01	11.90±3.32*	1.00±0.01
	<i>Akt1</i>	16.76±3.29*	1.00±0.01	5.30±1.26*	1.00±0.01
	<i>Nf-κb</i>	12.02±3.60*	1.00±0.01	6.65±0.96*	1.00±0.01
	<i>Traf2</i>	1.62±0.26*	1.00±0.01	1.96±0.39*	1.00±0.01
	<i>Jnk1</i>	23.86±7.75*	1.00±0.01	1.28±0.57	1.00±0.01
	<i>Jnk2</i>	19.00±4.20*	1.00±0.01	1.08±0.34	1.00±0.01
	<i>Jnk3</i>	23.87±3.50*	1.00±0.01	1.10±0.31	1.00±0.01
	<i>Caspase 3</i>	22.20±3.43*	1.00±0.01	7.85±0.85*	1.00±0.01
	<i>Caspase 9</i>	47.82±4.63*	1.00±0.01	15.12±2.86*	1.00±0.01
	<i>Caspase 12</i>	9.80±1.33*	1.00±0.01	25.60±4.12*	1.00±0.01
	<i>Bcl-xl</i>	8.69±1.78*	1.00±0.01	12.62±2.87*	1.00±0.01
cell cycle related genes	<i>Ccna1</i>	1.19±0.45	1.00±0.01	0.97±0.13	1.00±0.01
	<i>Ccnb1</i>	0.92±0.17	1.00±0.01	0.81±0.41	1.00±0.01
	<i>Ccnc</i>	1.14±0.49	1.00±0.01	0.92±0.27	1.00±0.01
	<i>Ccnd1</i>	1.02±0.23	1.00±0.01	0.85±0.32	1.00±0.01
	<i>Ccne1</i>	1.17±0.48	1.00±0.01	0.85±0.31	1.00±0.01
	<i>CD44</i>	1.04±0.34	1.00±0.01	0.87±0.34	1.00±0.01

Note: *: higher than the control group, #: lower than the control, $P < 0.05$, t test, n=12

Table S2 The abundance of the UPR-related key proteins and CCnb1 (n=6)

proteins	uterus		ovary	
	flutamide	control	flutamide	control
Perk	1.070297±	0.706044±	1.067731±	0.82905±
	0.133136*	0.190418	0.150577*	0.132117795
p-Elf2 α	0.255345±	0	0.297297±	0
	0.051452*		0.073599*	
Atf6	0.471336±	0.361516±	0.570475±	0.442125±
	0.0619*	0.031634	0.061542*	0.086697461
Grp78	0.804789±	0.573772±	0.559758±	0.299572±
	0.110131*	0.026138	0.072363*	0.053155946
Ire1	0.1735823±	0.111266±	0.232176±	0.084285±
	0.028942*	0.04433	0.057233*	0.021057305
Ccnb1	0.869870484±	0.825871±	1.244989±	1.22413±
	0.134541	0.091588	0.211691	0.216849964

Note: *: higher than the control group, $P < 0.05$, t test, n=6