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Dietary Selenium Supplementation Ameliorates Female Reproductive Efficiency in Aging Mice

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1. Supplementary material

Table S1. Details of primers used in RT-qPCR assay in this study.

Genes	Primer sequences (5'→3')	Tm (°C)	Product length (bp)	Accession ID
Gpx1	F: CACAGTCCACCGTGTATGCCTTC	60	191	NM_008160.6
	R: ACCGAGCACCACCAGTCCAC			
Gpx3	F: CGAGTATGGAGCCCTCACCA	60	172	NM_008161.4
	R: GCCCAGAATGACCAAGCCAA			
Gpx4	F: ATAAGACGGCTGCGTGGTGAAG	60	81	NM_008162.4
	R: TAGAGATAGCACGGCAGGTCCTTC			
Selenof	F: TGGACGACAACGGGAACATTGC	60	92	NM_053102.2
	R: GCGTTCCAACTTCTCGCTCAGG			
p21	F: TCCTGGTGATGTCCGACCTGTTC	60	84	NM_001111099.2
	R: CGGCGCAACTGCTCACTGTC			
Bcl-2	F: TCCTTCCAGCCTGAGAGCAACC	60	141	NM_009741.5
	R: CCGGCGGAGGGTCAGATGG			
Gapdh	F: CATGGCCTTCCGTGTTCCTA	60	104	NM_008084.3
	R: GCCTGCTTACCACCTTCTT			

Abbreviations/aliases: F: forward; R: Reverse; *Gpx1*: glutathione peroxidase 1; *Gpx3*: glutathione peroxidase 3; *Gpx4*: glutathione peroxidase 4; *Selenof*: Selenoprotein F; *Bcl-2*: B cell leukemia/lymphoma 2; *p21* also called *Cdkn1a*: cyclin-dependent kinase inhibitor 1A; *Gapdh*: glyceraldehyde 3-phosphate dehydrogenase; ID: identifier.

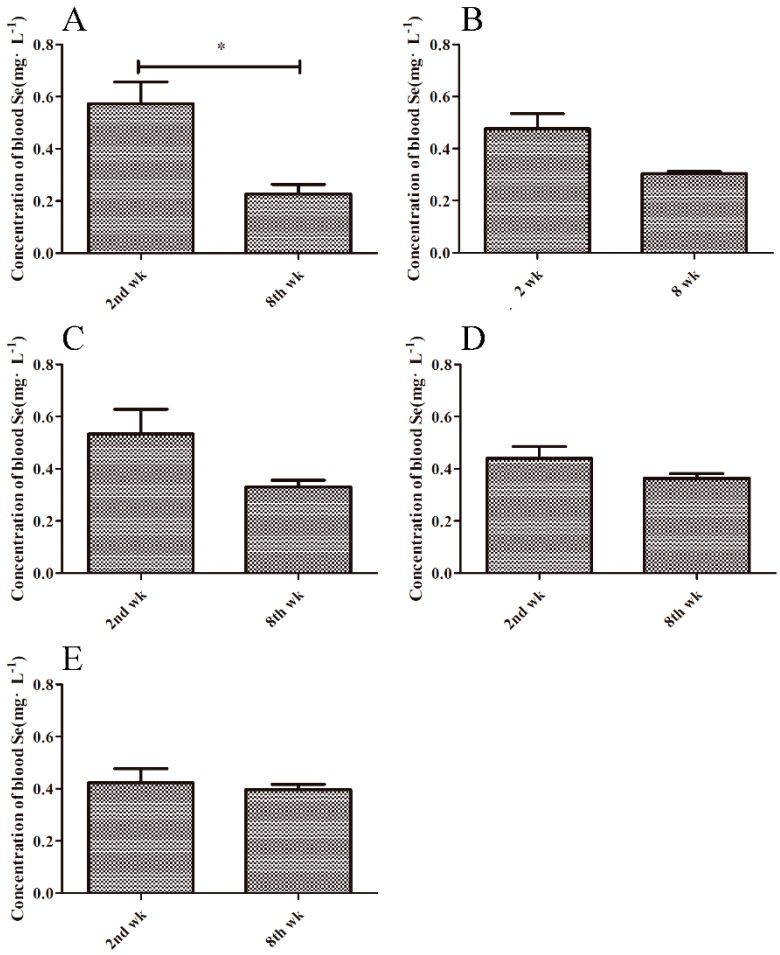

Figure S1. Baseline (week 2) vs. endpoint (week 8) whole-blood Se levels in aging female mice fed different concentrations of inorganic and organic selenium (Se). Values are expressed as mean ± SEMs. Each group comprised of three independent replicates. Bars with asterisk (*) indicates significant difference ($p < 0.05$) between baseline vs. endpoint whole-blood Se concentration within the same group. Notes: **(A)** Se-D: Se-deficient (sodium selenite 0.08 mg/kg); **(B)** ISe-A; inorganic Se-adequate (sodium selenite 0.15 mg/kg); **(C)** ISe-S: inorganic Se-supplemented (sodium selenite 0.33 mg/kg); **(D)** OSe-A: organic Se-adequate (Se-yeast 0.15 mg/kg); **(E)** OSe-S: organic Se-supplemented (Se-yeast 0.33 mg/kg) groups.

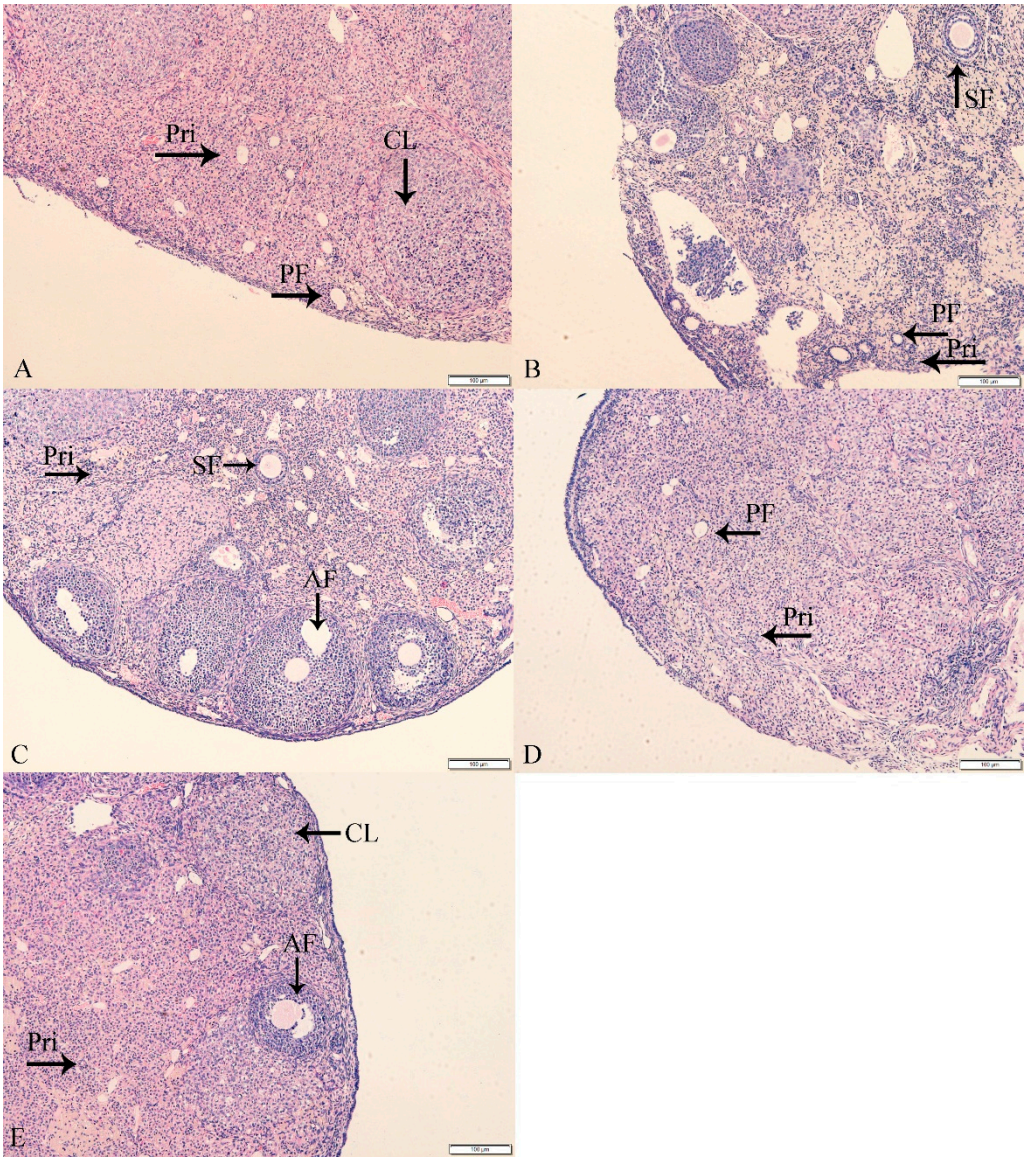

Figure S2. The representative photomicrographs of H and E stained ovarian sections of aged female mice fed different concentrations of dietary selenium (Se). **A**: Se-deficient (Se-D; sodium selenite 0.08 mg/kg); **B**: inorganic Se-adequate (ISe-A; sodium selenite 0.15 mg/kg); **C**: inorganic Se-supplemented (ISe-S; sodium selenite 0.33 mg/kg); **D**: organic Se-adequate (OSe-A; Se-yeast 0.15 mg/kg); **E:** organic Se-supplemented (OSe-S; Se-yeast 0.33 mg/kg) groups. **Notes**: Pri: primordial follicle; PF: primary follicle; SF: secondary follicle; AF: antral follicle; CL: corpus luteum. Original magnification 100 ×.