Article

X-Ray Fluorescence imaging and other analyses identifies selenium and GPX1 as important in female reproductive function – Supplementary Material

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Supplementary Tables

Supplementary Table 1: Expression of selenoprotein signals in the granulosa cells of small healthy versus large healthy, as well as small atretic versus large healthy follicles

Selenoprotein	Small healthy	Large healthy	Fold difference
GPX1	12.3	12.9	1.5
GPX4	*10.6*	*10.9*	*1.3*
GPX3	**8.6**	**10.3**	**3.2**
SEP15	*10.8*	*11.1*	*1.2*
SELH	*9.3*	*9.7*	*1*
VIMP	**8.6**	**9.8**	**2.2**
SELK	8.8	9.7	1.9
SELT	*8.9*	*9.2*	*1.2*
SELM	**6.6**	**8.1**	**2.9**
SEPHS2	7.4	8.1	1.7
	Small atretic	Large healthy	
GPX1	12.1	12.9	1.7
GPX3	**6.2**	**10.3**	**17.4**
GPX2	**5.3**	**6.9**	**3.0**
SEP15	*10.9*	*11.1*	*1.1*
VIMP	*9.7*	*9.8*	*1.1*
SELK	*9.6*	*9.7*	*1.1*
SELT	*8.8*	*9.2*	*1.3*
SELM	*7.7*	*8.1*	*1.3*
SEPN1	*7.7*	*7.4*	*1.3*
SEPHS2	*7.8*	*8.1*	*1.3*

	Species is up-regulated in both comparisons (*GPX1, GPX3, SEP15, VIMP, SELK, SELT, SELM, SEPHS2*)
Italics	Up-regulation is minor (<1.5)
Underlined	Up-regulation is moderate (1.5-2.0)
Bold	Up-regulation is large (>2.0)

Supplementary Table 2: Details of PCR primers

Gene name	Gene symbol	Amplicon size (bp)	Forward primer	Reverse primer	GenBank accession number
Glutathione peroxidase 1	*GPX1*	112	CATCGCTCTGAGGCACAACGGT	TGCCCAAACTGGTTGCAGGGGA	NM_174076.3
Glutathione peroxidase 3	*GPX3*	76	CTAGCCACCCTCAAGTATGTTCG	TCACATCGCCTTTCTCAAACAGT	NM_174077.3
VCP-interacting membrane protein	*VIMP*	93	CTTACGCACGCTTTTCACAG	TATGCTGCCTTCAACCCTTG	NM_001046114.2
Selenoprotein M	*SELM*	135	TTAATCGCCTGAAGGAGGTG	TTCGCTCCAGTTCCTCAAAG	NM_001163171.1