

## Inverse sex-based expression profiles of PTEN and Klotho in mice

Natalia Prudente de Mello<sup>1</sup>, Diana Zukas Andreotti<sup>1,2</sup>, Ana Maria Orellana<sup>2</sup>, Cristoforo Scavone<sup>2</sup>, Elisa Mitiko Kawamoto<sup>1</sup>

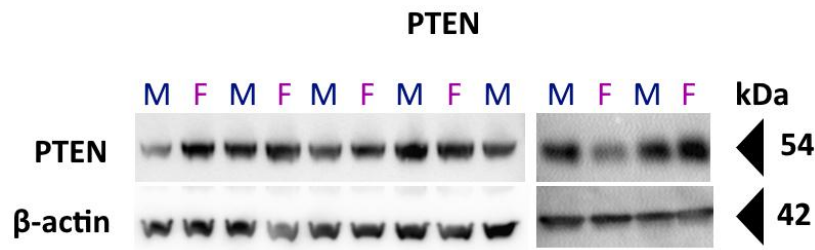
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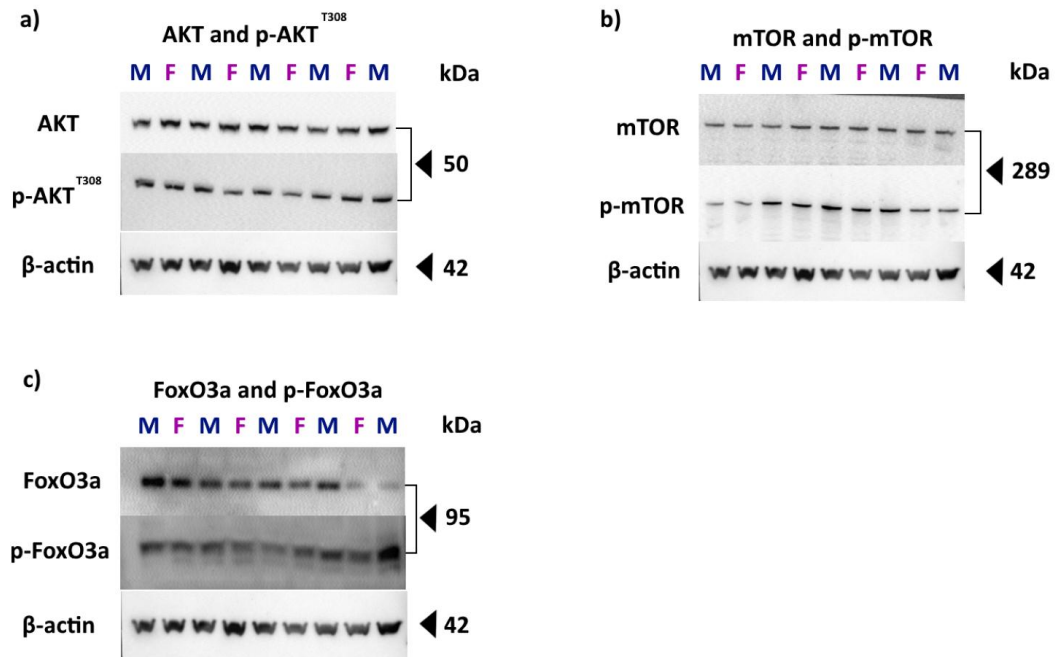
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### SUPPLEMENTARY MATERIAL

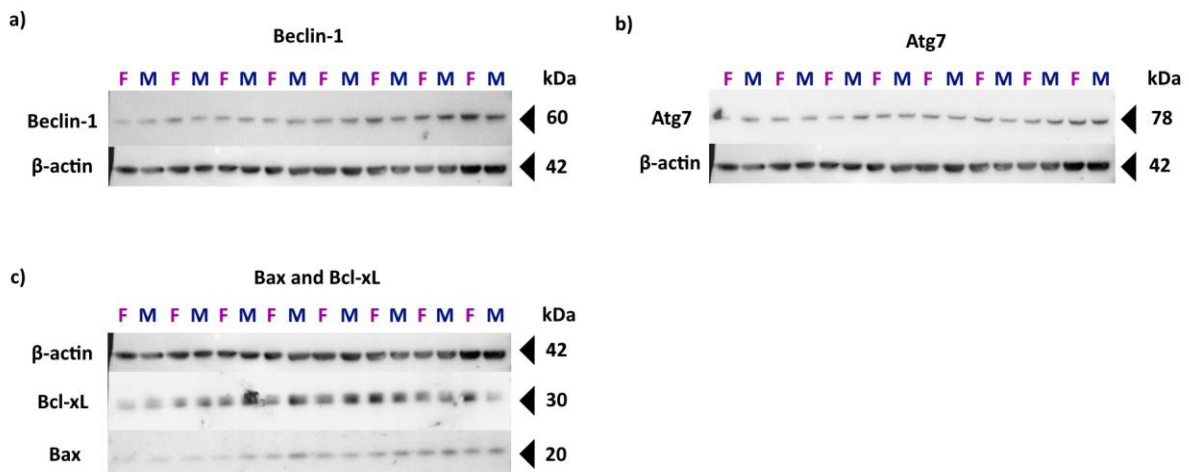
#### Supplementary Figures



**Supplementary Figure S1.** Western blotting membrane images of cortical PTEN protein [n = 7 (male) and n = 6 (female)]. Approximate position of the molecular weight standard is indicated by the black arrowhead. Full membrane blots are provided in Supplementary Information Figure 1.



**Supplementary Figure S2.** Western blotting membrane images of AKT, mTOR and FoxO3a. **(a)** AKT and p-AKT<sup>T308</sup> [n = 5 (male) and n = 4 (female); ns]; **(b)** mTOR and p-mTOR [n = 5 (male) and n = 4 (female); *P* = 0.0011]; **(c)** FoxO3a and p-FoxO3a [n = 5 (male) and n = 4 (female); *P* = 0.0020]. Approximate position of the molecular weight standard is indicated by the black arrowhead. Full membrane blots are provided in Supplementary Information Figure 2.



**Supplementary Figure S3.** Western blotting membrane images of Beclin-1, Atg7, Bax and Bcl-xL. **(a)** Beclin-1 [n = 8 (male and female); ns]; **(b)** Atg7 [n = 8 (male and female); ns]; **(c)** Bax and Bcl-xL [n = 7 (male and female); ns]. Approximate position of the molecular weight standard is indicated by the black arrowhead. Full membrane blots are provided in Supplementary Information Figure 3.

## Supplementary Table

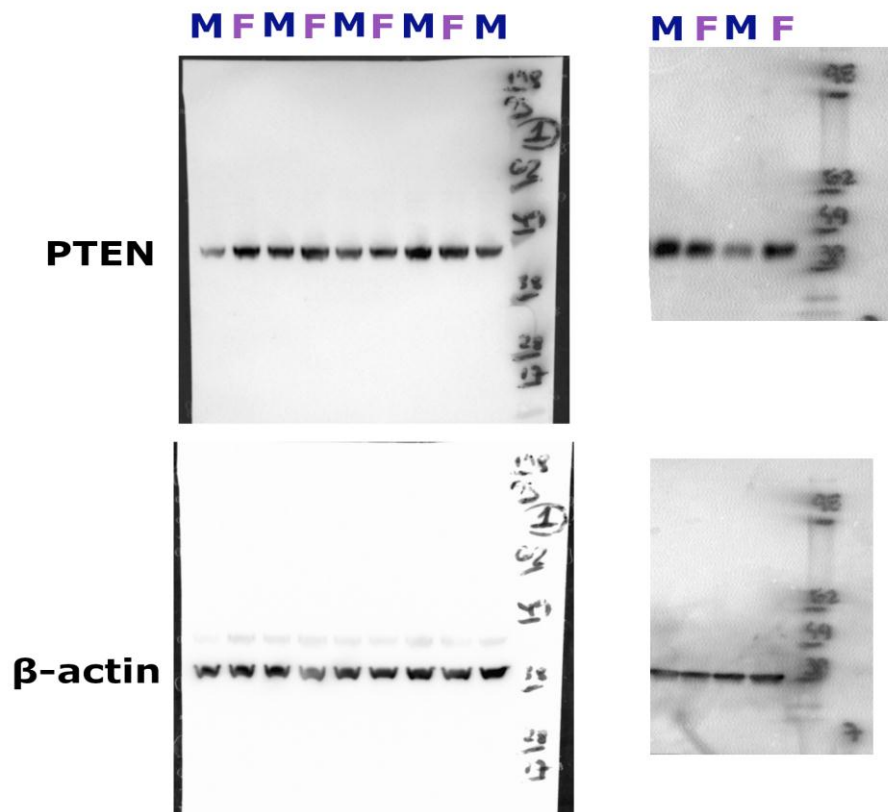
Protein	Statistical Analysis	Group compared	F (DFn, DFd)	P Value	Multiple Comparisons correction	Adjusted P Value or q Value	Significant or Discovery
<b>PTEN</b>	Multiple t test	F x M	-	0.033520	FDR	0.041062	Yes
	Two-way ANOVA	Interaction	F(1, 11) = 18.13	0.0013	-	-	Yes
		DIV7 x DIV14 (Time Point)	F(1, 11) = 43.73	<0.0001	-	-	Yes
		F x M (Sex)	F(1, 11) = 11.71	0.0057	-	-	Yes
		DIV7: F x M	-	-	Tukey	0.9251	No
		DIV14: F x M	-	-	Tukey	0.0014	Yes
		F: DIV7 x DIV14	-	-	Tukey	<0.0001	Yes
M: DIV7 x DIV14	-	-	Tukey	0.4148	No		
<b>AKT</b>	Multiple t tests	F x M	-	0.463137	FDR	0.425507	No
<b>p-AKT<sub>Thr308</sub>/AKT</b>	Multiple t tests	F x M	-	0.455328	FDR	0.425507	No
<b>mTOR</b>	Multiple t tests	F x M	-	0.026126	FDR	0.038406	Yes
<b>p-mTOR/mTOR</b>	Multiple t tests	F x M	-	0.001147	FDR	0.007303	Yes
<b>FoxO3a</b>	Multiple t tests	F x M	-	0.006478	FDR	0.015871	Yes
<b>p-FoxO3a/FoxO3a</b>	Multiple t tests	F x M	-	0.001987	FDR	0.007303	Yes
<b>Beclin1</b>	Multiple t tests	F x M	-	0.864294	FDR	0.603663	No
<b>Atg7</b>	Multiple t tests	F x M	-	0.903441	FDR	0.603663	No
<b>Bax/Bcl-xL</b>	Multiple t tests	F x M	-	0.763670	FDR	0.603663	No
<b>Klotho</b>	Multiple t tests	F x M	-	0.016106	FDR	0.029595	Yes

**Supplementary Table 1.** Summary of the statistical analyses and respective values. Analyses were conducted through two-tailed Student's *t*-test corrected by False Discovery Rate (FDR), or two-way ANOVA followed by Tukey's post hoc test. All adjusted P values (Tukey) or q values (FDR) and the respective significance or discovery statuses are included in the table.

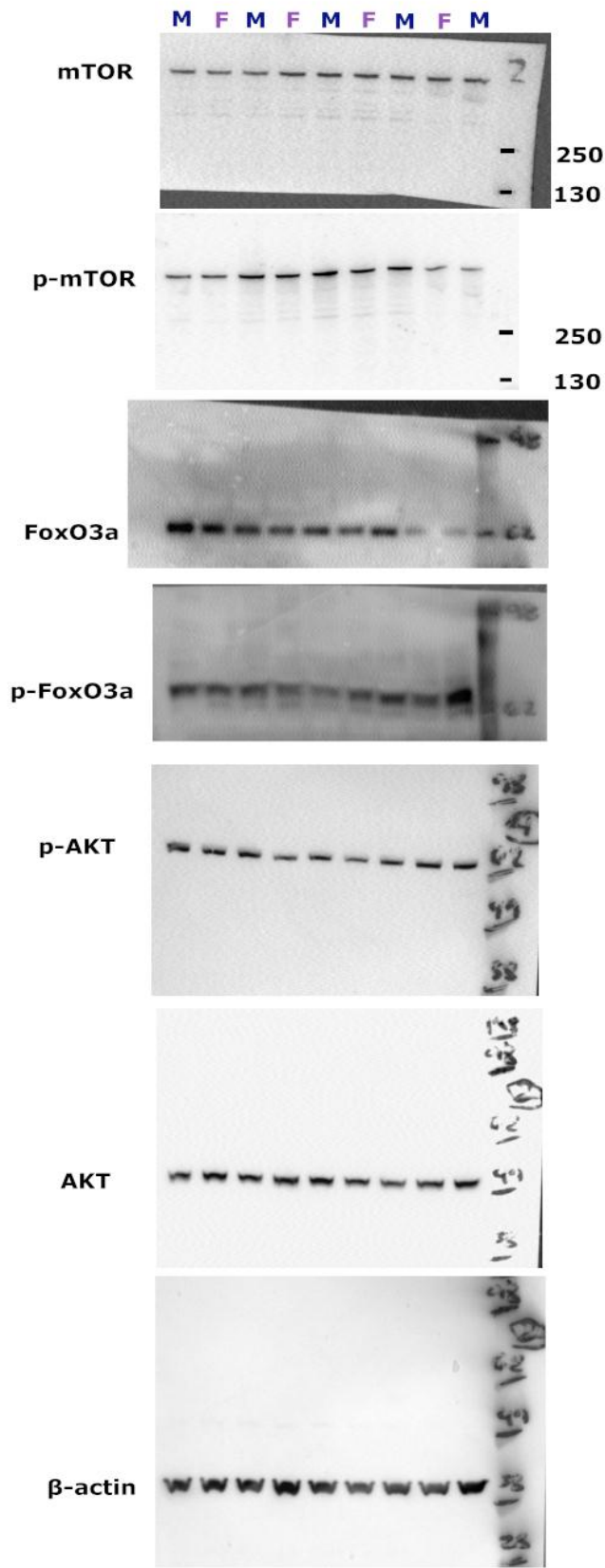
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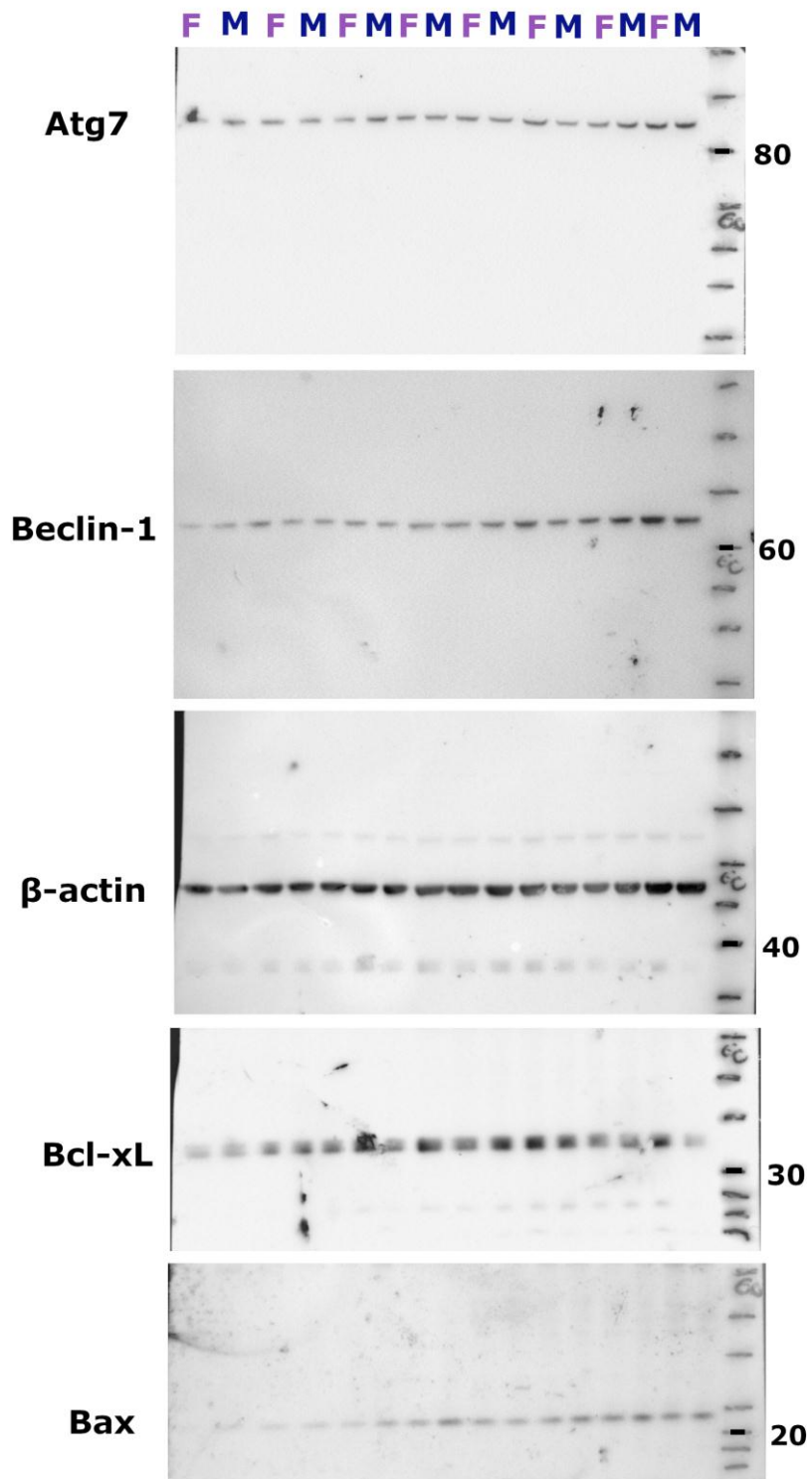
### Supplementary Information



Supplementary Information - Figure 1



Supplementary Information - Figure 2



**Supplementary Information - Figure 3**