

*Supplementary Material*

**SUPPLEMENTARY TABLE 1**

<b>Densitometric data from Western blots of the different proteins analyzed. All values are normalized with respect to the loading control, <math>\beta</math>-Actin</b>										
Experimental conditions		GFAP	PI3K	Akt	GSK3	GSK3-pSer	Synapsin	p-Synapsin	Synaptophysin	PSD95
SHAM	DI	0.2749	0.3392	0.6290	0.6559	0.4044	0.7059	0.5684	3.1042	1.2441
		0.3207	0.3381	0.7991	0.7700	1.0129	0.8521	1.7455	2.3620	1.5932
		0.3321	0.2964	1.1512	0.8376	0.7016	0.8698	2.4450	3.4808	1.6544
		0.3011	0.4642	1.3635	0.7100	0.7701	0.8703	1.7718	3.0756	1.5401
	DII	0.3604	0.5685	1.5375	0.5611	0.3417	0.9827	0.6319	2.8145	1.6854
		0.9494	0.7329	1.5432	0.9590	0.6788	1.2966	1.0062	5.1598	2.1537
		1.0302	0.7034	2.0584	0.8850	0.5312	1.5268	0.3966	3.0217	2.4011
		1.4837	0.8459	1.3290	1.0400	0.7470	1.9749	0.5013	4.8369	3.1830
OVX	DI	0.1710	0.3580	0.2005	0.3343	0.3343	0.3288	0.8040	0.5499	0.3130
		0.1830	0.2777	0.1751	0.3152	0.2152	0.3524	0.5840	0.7183	0.3520
		0.1740	0.2206	0.2507	0.2833	0.2186	0.4082	0.7470	0.5786	0.3630
		0.2580	0.4349	0.2223	0.5826	0.3299	0.6246	0.3910	1.2126	0.5280
	DII	0.2730	0.5660	0.5364	0.6315	0.3928	0.6078	0.2280	1.2640	0.4090
		0.2100	0.3025	0.2810	0.4465	0.4719	0.9288	0.4490	0.6118	0.5020
		0.2520	0.3848	0.4446	0.4731	0.7846	1.2036	0.3100	0.6361	0.7010
		0.2520	0.4881	0.8916	0.5230	0.5469	0.7262	0.2590	1.6712	0.3990
OVX-E	DI	0.2160	0.1696	0.2250	0.2273	0.2131	0.3087	0.4740	0.8131	0.2820
		0.2260	0.2211	0.5316	0.1910	0.3214	0.5858	0.5110	0.7832	0.3730
		0.1920	0.2991	0.3086	0.1912	0.2431	0.3535	0.3720	0.5330	0.2640
		0.2260	0.4379	0.3770	0.1711	0.2216	0.3932	0.3760	0.5696	0.3020
	DII	0.1690	0.3823	0.8368	0.2641	0.1554	0.3613	0.1080	0.8612	0.2740
		0.1420	0.3182	0.3269	0.2607	0.1448	0.2517	0.0950	0.8243	0.1990
		0.1720	0.2899	0.3043	0.3269	0.1793	0.3240	0.1100	0.9822	0.2420
		0.1530	0.2847	0.0987	0.3043	0.1859	0.3459	0.1090	1.2263	0.2380

SHAM: Intact, sham-operated controls

OVX: Ovariectomized, placebo-treated

OVX-E: Ovariectomized, estradiol-treated