



**B**

Western blot analysis of fAPP and CTFs levels (Mean $\pm$ SEM)				
Male		GGA3+/-;5XFAD (n=8)	GGA3+/-;5XFAD (n=8)	GGA3-/-;5XFAD (n=9)
	fAPP/GAPDH	1.09 $\pm$ 0.03	0.96 $\pm$ 0.03	0.92 $\pm$ 0.04
	pC99/fAPP	1.07 $\pm$ 0.07	1.05 $\pm$ 0.09	1.09 $\pm$ 0.06
	C99/fAPP	1.18 $\pm$ 0.09	1.03 $\pm$ 0.05	1.07 $\pm$ 0.05
	pC89/fAPP	1.12 $\pm$ 0.05	0.96 $\pm$ 0.08	1.14 $\pm$ 0.06
Female		GGA3+/-;5XFAD (n=9)	GGA3+/-;5XFAD (n=8)	GGA3-/-;5XFAD (n=9)
	fAPP/GAPDH	1.03 $\pm$ 0.04	0.93 $\pm$ 0.04	1.05 $\pm$ 0.05
	pC99/fAPP	0.96 $\pm$ 0.06	1.02 $\pm$ 0.05	1.06 $\pm$ 0.07
	C99/fAPP	1.00 $\pm$ 0.04	1.08 $\pm$ 0.04	0.95 $\pm$ 0.04
	pC89/fAPP	1.04 $\pm$ 0.09	1.01 $\pm$ 0.07	1.01 $\pm$ 0.09

Additional File 5