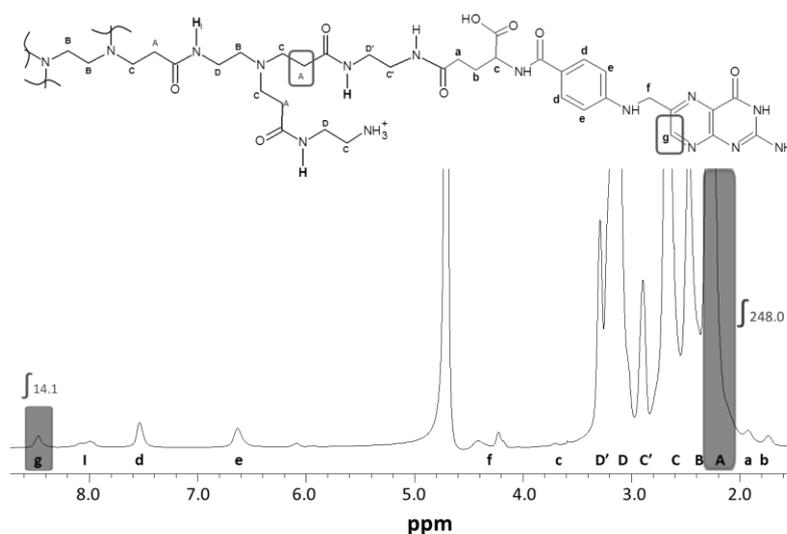


Supplementary Materials

# Prevention of Synaptic Alterations and Neurotoxic Effects of PAMAM Dendrimers by Surface Functionalization

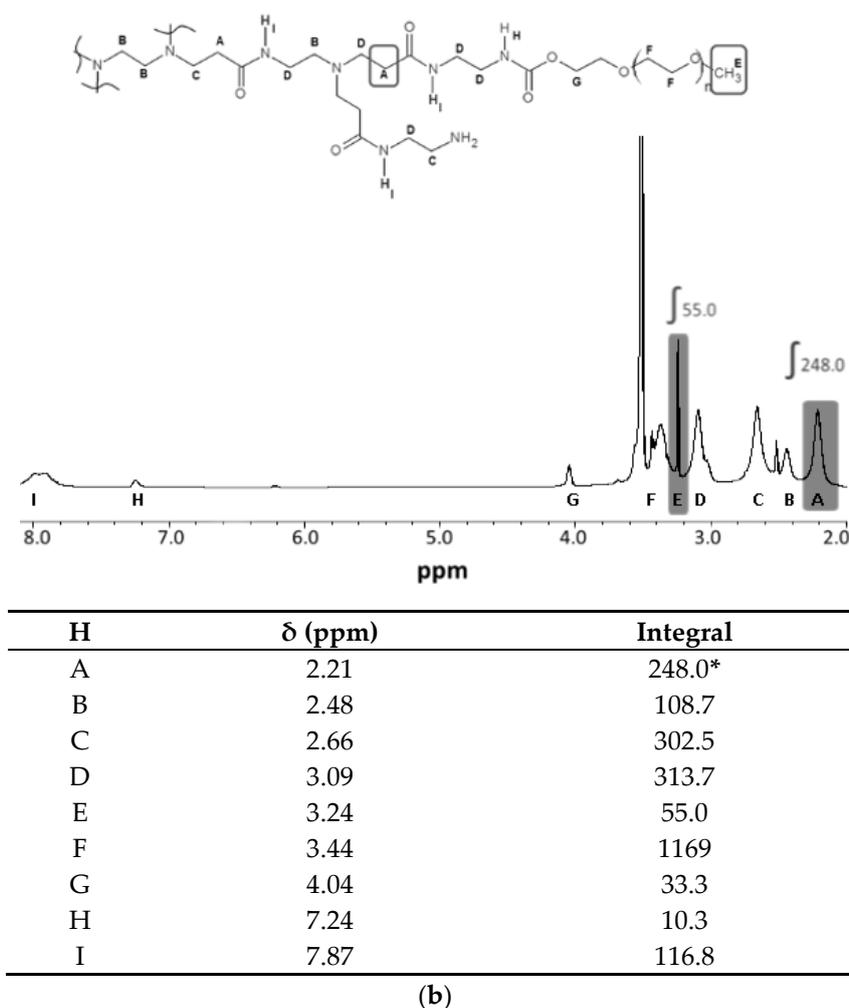
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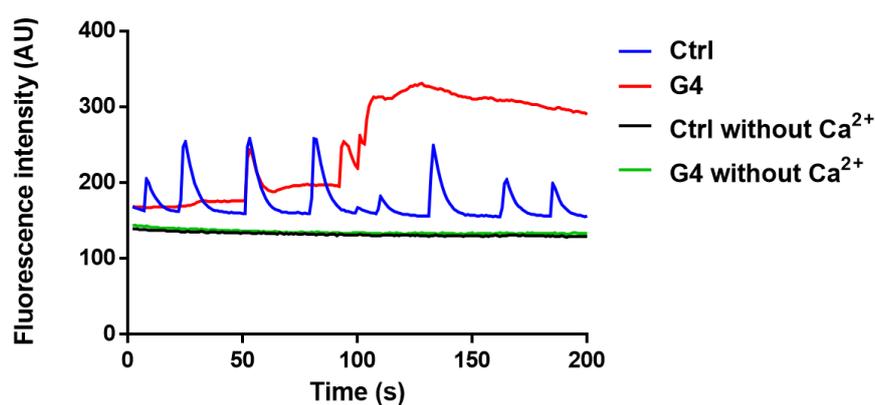


H	$\delta$ (ppm)	Integral
b	1.74	-
a	1.93	-
A	2.22	248.0*
B	2.47	-
C'	2.68	-
C	2.89	-
D'	3.17	-
D	3.29	-
c	3.60	-
f	4.42	30.8
e	6.63	29.8
d	7.54	31.6
I	8.05	-
g	8.47	14.1

(a)



**Figure S1.**  $^1\text{H}$  NMR spectra for modified dendrimers. (a)  $^1\text{H}$  NMR ( $\text{D}_2\text{O}$ , 400 MHz) spectra for PFO<sub>25</sub> dendrimer; (b)  $^1\text{H}$  NMR ( $\text{DMSO-d}_6$ , 400 MHz) spectra for PPEG<sub>25</sub> dendrimer.



**Figure S2.** Analysis of intracellular  $\text{Ca}^{2+}$  transients without extracellular  $\text{Ca}^{2+}$ . In order to corroborate that intracellular  $\text{Ca}^{2+}$  increment induced by G4 is due to the intake of extracellular  $\text{Ca}^{2+}$  and not because of the release of organelles storage, G4 treatment was performed using an external solution without  $\text{Ca}^{2+}$ . No changes in intracellular  $\text{Ca}^{2+}$  are observed in this condition; ( $n = 10$ ).

