

Supplemental Figure 6

A

Rate of axon growth ($\mu\text{m/hr}$)	No EF		200mV/mm + ToxinB		
	0 ng/ml	1 ng/ml	0 ng/ml	1 ng/ml	10 ng/ml
Cathode	40.2 (\pm 7.2)	44.3 (\pm 8.2)	45.2 (\pm 7.8)	43.2 (\pm 3.4)	46.7 (\pm 9.3)
Anode	37.7 (\pm 7.1)	43.3 (\pm 5.3)	42.7 (\pm 4.2)	29.0 (\pm 7.8)	43.6 (\pm 4.8)
Perpendicular	39.1 (\pm 13.5)	44.4 (\pm 10.5)	39.8 (\pm 6.6)	30.2 (\pm 5.5)	43.1 (\pm 3.1)
n experiment	3	3	6	3	3
n axons	121	154	271	173	122

B

Rate of axon growth ($\mu\text{m/hr}$)			Cathode				
			No EF		200mV/mm		
			0 ng/ml	1 ng/ml	0 ng/ml	1 ng/ml	10 ng/ml
Cathode	No EF	0 ng/ml	N/A		0.9996	>0.9999	0.9992
		1 ng/ml	>0.9999	N/A	>0.9999	>0.9999	>0.9999
	200mV/mm	0 ng/ml			N/A		
		1 ng/ml			>0.9999	N/A	
		10 ng/ml			>0.9999	>0.9999	N/A

Rate of axon growth ($\mu\text{m/hr}$)			Anode				
			No EF		200mV/mm		
			0 ng/ml	1 ng/ml	0 ng/ml	1 ng/ml	10 ng/ml
Anode	No EF	0 ng/ml	N/A		0.9996	0.9771	>0.9999
		1 ng/ml	0.9998	N/A	>0.9999	0.5594	>0.9999
	200mV/mm	0 ng/ml			N/A		
		1 ng/ml			0.3893	N/A	
		10 ng/ml			>0.9999	0.6284	N/A

Rate of axon growth ($\mu\text{m/hr}$)			Perpendicular				
			No EF		200mV/mm		
			0 ng/ml	1 ng/ml	0 ng/ml	1 ng/ml	10 ng/ml
Perpendicular	No EF	0 ng/ml	N/A		>0.9999	0.9748	>0.9999
		1 ng/ml	0.9999	N/A	0.9999	0.5724	>0.9999
	200mV/mm	0 ng/ml			N/A		
		1 ng/ml			0.8753	N/A	
		10 ng/ml			>0.9999	0.8525	N/A

Figure S6: ToxinB does not affect rate of RGC axon growth. Explants were grown overnight in 1ng/ml or 10ng/ml of ToxinB, then exposed to an EF of 200 mV/mm. ToxinB was replenished 1 hour before initiating EF exposure. The effect of 1ng/ml and 10ng/ml of ToxinB on rate of axon growth was quantified and shown in (A). Number of experiments and total axons quantified are listed per condition. Error represent SD. (B) P-values for two-way analysis of variance performed on data in (A) with Tukey's multiple comparisons test.