

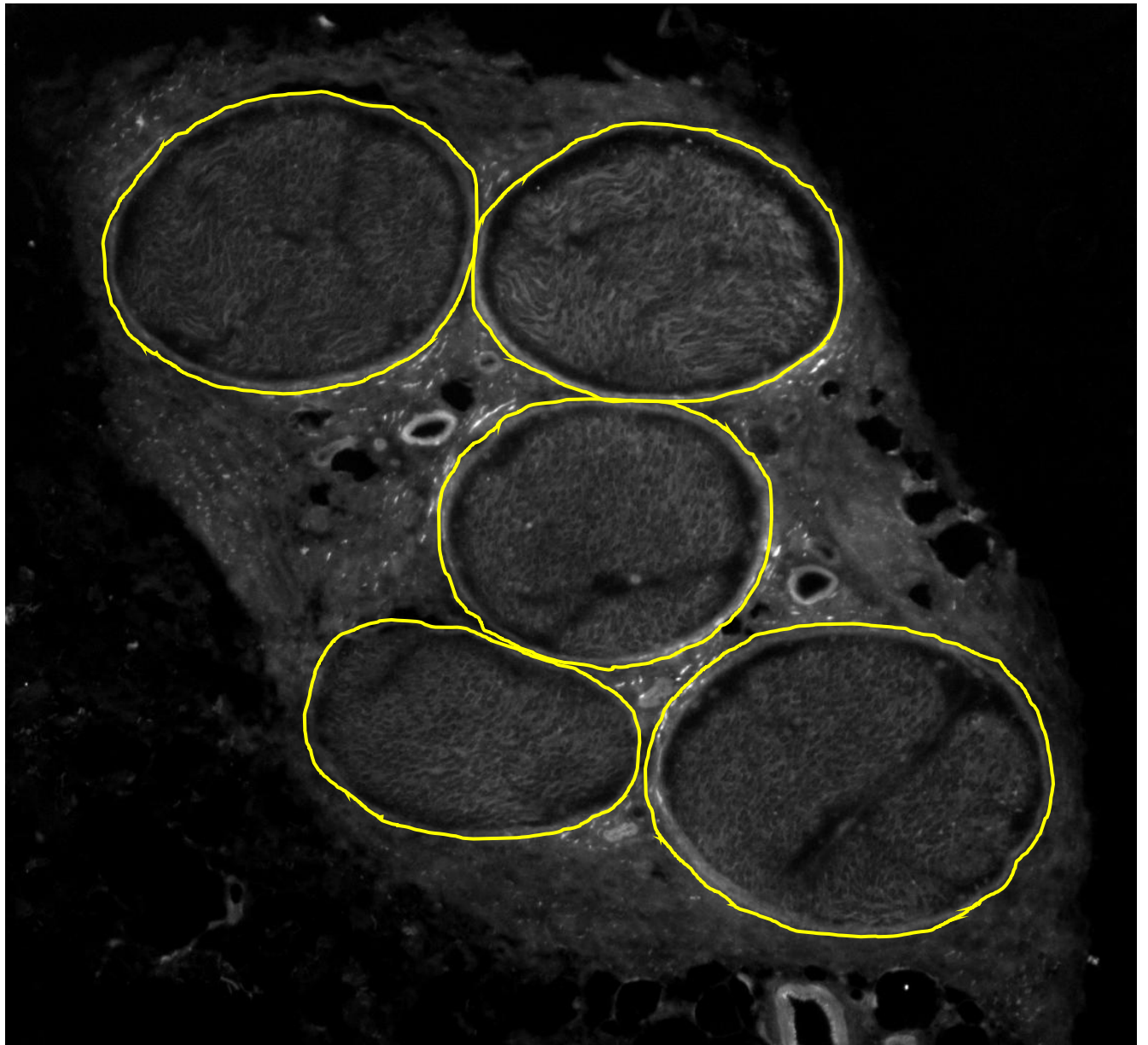
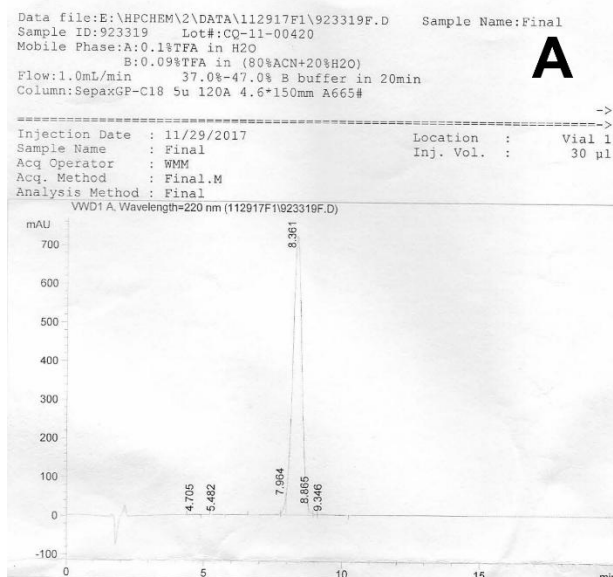


Figure S1: Schematic of ROI selection. Representative image of a human nerve section incubated with CPC-18. Regions of interest (ROIs) are drawn around individual nerve bundles in each section as outlined in yellow. The average fluorescent intensity was measured for each ROI, and the mean of these measurements was recorded for each sample



Signal 1:VWD1 A, Wavelength=220 nm

Peak #	RT [min]	Type	Height	Width [min]	Area	Area %
1	4.705	BP	1.000	0.193	12.313	0.072
2	5.482	BBA	0.771	0.200	9.722	0.057
3	7.770	MF	3.921	0.134	31.421	0.184
4	7.964	FM	43.456	0.084	219.677	1.288
5	8.361	MF	721.125	0.383	16579.602	97.195
6	8.865	MF	21.999	0.073	96.833	0.568
7	8.954	FM	3.593	0.113	24.417	0.143
8	9.346	VP	2.766	0.419	84.030	0.493

*** End of Report ***

Purity = 97.2%

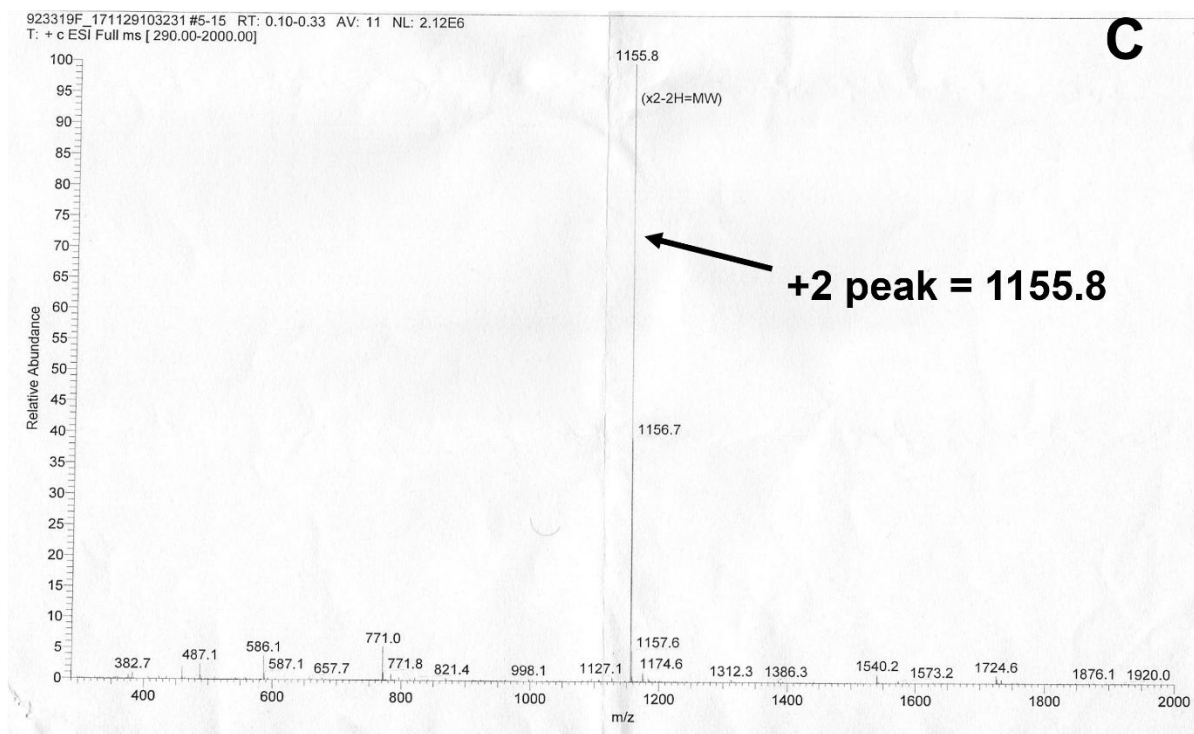
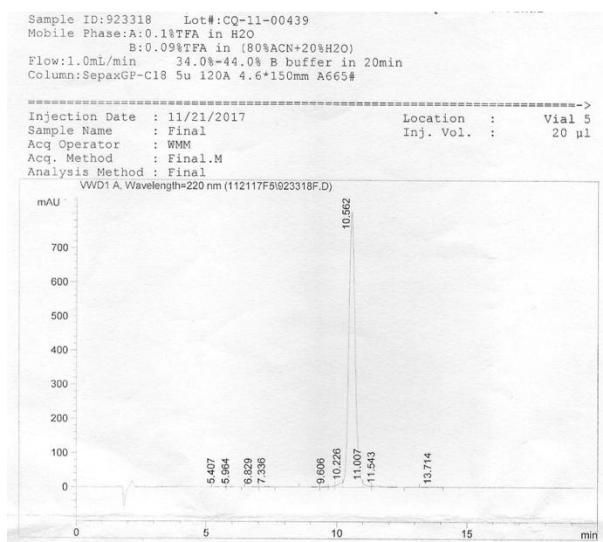
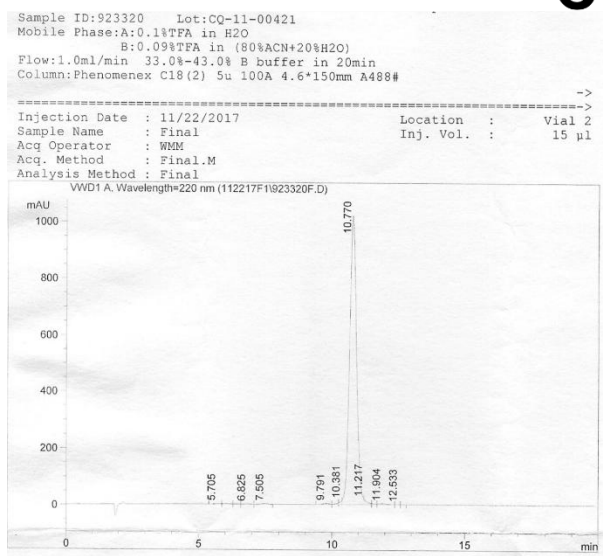


Figure S2: HPLC and Mass determination for CPC-19 (bevonescein). HPLC traces for CPC-19 (bevonescein) (A) with corresponding area under the curve integrations (B). Mass Spectrometry Trace (C) (MW = 2310.5 g/mol)

A**B**

Signal 1:VWD1 A, Wavelength=220 nm

Peak #	RT [min]	Type	Height	Width [min]	Area	Area %
1	5.407	BP	0.744	0.207	10.056	0.072
2	5.964	VBA	0.505	0.233	7.826	0.056
3	6.829	PV	0.507	0.181	6.108	0.044
4	7.336	VP	1.014	0.226	15.095	0.108
5	9.130	PV	0.609	0.306	12.801	0.091
6	9.606	VV	1.142	0.181	14.023	0.100
7	9.915	MF	3.074	0.141	26.005	0.186
8	10.226	FM	12.698	0.208	158.623	1.133
9	10.562	MF	804.921	0.280	13545.017	96.770
10	11.007	FM	12.243	0.137	100.421	0.717
11	11.543	VBA	3.199	0.375	86.134	0.615
12	13.714	BP	0.671	0.321	14.966	0.107

Purity = 96.8%**C****D**

Signal 1:VWD1 A, Wavelength=220 nm

Peak #	RT [min]	Type	Height	Width [min]	Area	Area %
1	5.705	VV	2.293	0.180	28.571	0.150
2	6.038	VV	2.228	0.188	27.491	0.144
3	6.358	VV	0.427	0.143	4.785	0.025
4	6.825	VP	1.386	0.189	17.642	0.092
5	7.505	VP	2.819	0.229	43.336	0.227
6	9.791	BP	4.249	0.223	63.096	0.330
7	10.255	MF	6.261	0.118	44.198	0.231
8	10.381	FM	13.322	0.092	73.234	0.383
9	10.770	FM	1020.659	0.303	18536.957	97.034
10	11.217	MF	18.834	0.134	151.667	0.794
11	11.499	FM	3.536	0.164	34.825	0.182
12	11.904	VV	3.313	0.300	71.818	0.376
13	12.533	VV	0.429	0.106	3.258	0.017
14	12.721	VBA	0.298	0.123	2.704	0.014

Purity = 97.0%

Figure S3: Purity determination for other tested compounds. HPLC traces for CPC-18 (A) with corresponding area under the curve and purity (B). HPLC traces for CPC-20 (C) and purity determination (D).

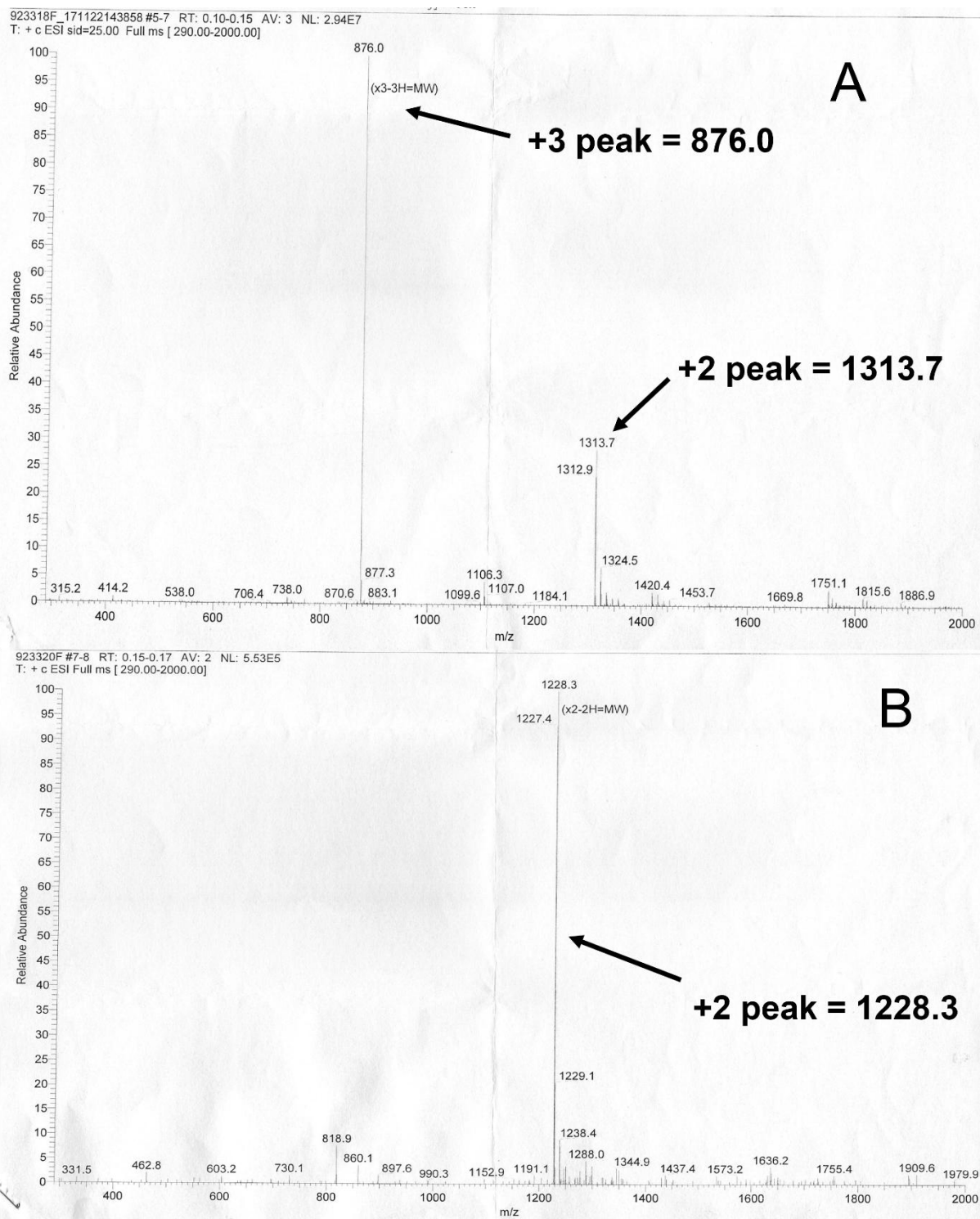


Figure S4: Mass determination for other tested compounds. MS traces for CPC-18, MW = 2624.8 g/mol (**A**) and CPC-20, MW = 2454.6 g/mol (**B**).

Table S1: Comparison/Statistical Analysis of nerve binding for tested compounds. Anova intensity analysis and 95% confidence interval (A). Tukey Post Hoc Comparison of statistical results for CPC-17, CPC-18, CPC-19 (bevonescein), and CPC-20 (B). Comparisons are based on estimate marginal means [41–44].

(A) Anova - Intensity							
		Sum of Squares	df	Mean Square	F	p	
Experiment		252	3	94233	4.90	0.004	
Agent		4	4	317106	16.49	<.001	
Residuals		562	4	19228	631		
(B) Tukey Post Hoc Comparisons - Agent							
Comparison			Mean Difference	SE	df	t	p _{Tukey}
Agent 1	Agent 2						
CPC-17	-	CPC-18	-92.0	54.3	60.0	-1.696	0.444
	-	CPC-19	-309.8	54.3	60.0	-5.711	<.001
	-	CPC-20	-18.5	56.6	60.0	-0.326	0.997
	-	5-CF	84.1	59.7	60.0	1.408	0.625
CPC-18	-	CPC-19	-217.8	49.0	60.0	-4.443	<.001
	-	CPC-20	73.5	54.3	60.0	1.355	0.658
	-	5-CF	176.1	54.0	60.0	3.263	0.015
CPC-19	-	CPC-20	291.4	54.3	60.0	5.370	<.001
	-	5-CF	394.0	54.0	60.0	7.299	<.001
CPC-20	-	5-CF	102.6	59.7	60.0	1.718	0.431