

**Table 1. Sholl analysis of astrocytes**

	Calcium indicators		Morphology markers		
	Fluo-4AM	OGB-AM	GFAP	SR101	Alexa-488
Process maximum ( $N_m$ ) <sup>a</sup>	6 ± 0.3	7 ± 1	15 ± 2	18 ± 2	36 ± 3
Critical value ( $r_c$ ; $\mu\text{m}$ )	13 ± 1	9 ± 1	19 ± 1	15 ± 2	19 ± 1
Maximum radius ( $\mu\text{m}$ )	30 ± 2	25 ± 1	45 ± 2	43 ± 3	50 ± 3
Number of primary branches ( $N_p$ ) <sup>a</sup>	4.0 ± 0.4	4.2 ± 0.5	5.9 ± 0.6	8.3 ± 0.6	6.3 ± 0.6 <sup>b</sup>
Integrated Sholl plot (intersection · $\mu\text{m}$ )	73 ± 7	78 ± 2	288 ± 26	341 ± 25	749 ± 94
Schoenen ramification index ( $N_m/N_p$ ) <sup>a</sup>	1.5 ± 0.1	1.6 ± 0.2	2.9 ± 0.3	2.3 ± 0.3	5.4 ± 0.6
<i>n</i>	19	6	16	6	6

<sup>a</sup>Tukey's ANOVA test ( $p < 0.05$ ) shows that Fluo-4 loaded cells displayed significantly fewer processes as compared with GFAP, SR101, and Alexa-488 astrocytes, but that there were no significant differences between GFAP and SR101 cells. The greatest number of processes and morphological complexity was seen for the astrocytes loaded with Alexa-488.

<sup>b</sup>The number of primary processes is lower for the Alexa-488 cells as compared with the SR101 cells because the patch pipette obscures some primary processes (Fig 2 A).