

**S1 Table: Phenotypic description of PN in wild-type, *Sema-1a* LOF and rescue experiments in S4 and S6 Figures**

	type of PN (emb/larval) <sup>a</sup>	conditions of <i>Sema-1a</i> expression	total number (n)	% of obvious dendritic mis-targeting	% of dendritic occupancy in Brp negative regions and/or partial glomerulus	% of other dendritic mis-targeting	notes
Dendrites of <i>Sema-1a</i> -deficient PNs do not mis-target into select AL regions	VA2 adPN (emb)	<i>wt</i>	1	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	3	0%	0%	0%	
	VM3 adPN (emb)	<i>wt</i>	6	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	9	11% <sup>b</sup>	0%	22% <sup>d</sup>	<sup>b</sup> dendritic splitting (11%) <sup>d</sup> mis-targeting of a few dendritic arbors to the DM1 (11%) and DM5 (11%) glomeruli
	VA3 adPN (larval)	<i>wt</i>	2	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	5	40% <sup>b</sup>	0%	0%	<sup>b</sup> dendritic innervation in the ventral edge of the VM5v glomerulus
		<i>Sema-1aP1+Sema-1a</i>	5	0%	80% <sup>c</sup>	0%	<sup>c</sup> dendritic innervation in the ventral part and/or largely outside of the DL1 glomerulus (Brp negative region)
	DL3 IPN (larval; S6 Fig.)	<i>wt</i>	13	0% <sup>b</sup>	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	14	0%	0%	0%	
		<i>Sema-1aP1+Sema-1a</i>	18	0%	100% <sup>c</sup>	11% <sup>d</sup>	<sup>c</sup> dendritic innervation outside of the DL3 glomerulus (Brp negative region) <sup>d</sup> dendritic splitting
	VA4 IPN (larval)	<i>wt</i>	2	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	2	50% <sup>b</sup>	0%	0%	<sup>b</sup> dendritic splitting
	VC1 IPN (larval)	<i>wt</i>	1	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	17	6% <sup>b</sup>	0%	0%	<sup>b</sup> dendritic innervation to the region ventral to the DP1m glomerulus
	VC2 IPN (larval)	<i>wt</i>	2	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	2	0%	0%	0%	
	VA1Im vPN (larval; S4 Fig.)	<i>wt</i>	5	0%	0%	0%	
		<i>Sema-1a<sup>P1</sup></i>	15	0%	0%	0%	
<i>Sema-1aP1+Sema-1a</i>		8	0%	0%	0%		
VL1 vPN (larval; S4 Fig.)	<i>wt</i>	4	0%	0%	0%		
	<i>Sema-1a<sup>P1</sup></i>	11	0%	0%	0%		
	<i>Sema-1aP1+Sema-1a</i>	3	0%	0%	0%		

<sup>a</sup> emb:embryonic-born; larval: larval-born

<sup>b, c, d</sup> see the description in the column of notes