

S4 Table: Phenotypic description of PNs in *wild-type*, *Sema-1a* LOF and rescue experiments in S8 and S9 Figures

	type of PN (emb/larval) ^a	conditions of <i>Sema-1a</i> expression	total number (n)	% of dendritic mis-targeting in the VM7v glomerulus	% of dendritic occupancy in Brp negative regions and/or partial glomerulus	% of other dendritic mis-targeting	notes
<i>Sema-1a</i> -deficient PNs with a phenotype of dendritic mis-targeting to the VM7v glomerulus	DM1 IPN ^e (larval; S9 Fig.)	<i>wt</i>	6	0%	0%	0%	
		<i>Sema-1a</i> ^{P1}	6	83% ^b	0%	50% ^d	^b dendritic innervation in the VM7v glomerulus ^d dendritic innervation in the VA4 glomerulus (33%; one: heavy dendritic innervation; the other one: a dendritic branch) and the region around the VC1 glomerulus (17%)
		<i>Sema-1a</i> ^{P1} + <i>Sema-1a</i>	7	0%	14% ^c	14% ^d	^c dendritic innervation largely outside of the DM1m glomerulus (Brp negative region) ^d a patch of dendritic innervation ventral to the VM7v glomerulus
	DM2 IPN (larval; S9 Fig.)	<i>wt</i>	8	0%	0%	0%	
		<i>Sema-1a</i> ^{P1}	26	31% ^b	0%	27% ^d	^b dendritic innervation in the VM7v glomerulus ^d dendritic innervation to the region posterior to the VM7d glomerulus (12%) and the region ventral to the DP1m, DM1 or DM2 glomerulus (19%)
		<i>Sema-1a</i> ^{P1} + <i>Sema-1a</i>	8	0%	100% ^c	0%	^c dendritic innervation in the dorsal (50%) or ventral (50%) part of the DM2 glomerulus
<i>Sema-1a</i> -deficient PNs with a phenotype of dendritic mis-targeting to the VA4 glomerulus	DM1 IPN ^e (larval; S9 Fig.)	<i>wt</i>	6	0%	0%	0%	
		<i>Sema-1a</i> ^{P1}	6	50% ^b	0%	83% ^d	^b dendritic innervation in the VA4 glomerulus (33%; one: heavy dendritic innervation; the other one: a dendritic branch) and the region around the VC1 glomerulus (17%) ^d dendritic innervation in the VM7v glomerulus
		<i>Sema-1a</i> ^{P1} + <i>Sema-1a</i>	7	0%	14% ^c	14% ^d	^c dendritic innervation largely outside of the DM1m glomerulus (Brp negative region) ^d a patch of dendritic innervation ventral to the VM7v glomerulus
	VA7m IPN ^e (larval; S9 Fig.)	<i>wt</i>	4	25% ^b	0%	0%	^b a small patch of dendritic innervation to the VA4 glomerulus
		<i>Sema-1a</i> ^{P1}	9	67% ^b	0%	44% ^d	^b dendritic innervation in part of the VA4 and/or VC2 glomeruli ^d dendritic innervation to the region close to the VC1 glomerulus
		<i>Sema-1a</i> ^{P1} + <i>Sema-1a</i>	15	0%	100% ^c	0%	^c dendritic innervation largely outside of the VA7m glomerulus (Brp negative region)
<i>Sema-1a</i> -deficient PNs with a phenotype of dendritic mis-targeting to the region ventral to the DP1m glomerulus	DL1 adPN (larval; S8 Fig.)	<i>wt</i>	12	0%	0%	0%	
		<i>Sema-1a</i> ^{P1}	35	17% ^b	0%	94% ^d	^b dendritic innervation to the region ventral to the DP1m glomerulus ^d dendritic mis-targeting along the DL-to-VM axis of the AL as described previously (Komiya <i>et al.</i> , 2007)
		<i>Sema-1a</i> ^{P1} + <i>Sema-1a</i>	12	0%	100% ^c	0%	^c dendritic innervation largely outside of the DL1 glomerulus (Brp negative region)
	DL5 IPN (emb; S9 Fig.)	<i>wt</i>	6	0%	0%	17% ^d	^d a patch of dendritic arbors anteroventral to the DP1m glomerulus
		<i>Sema-1a</i> ^{P1}	4	50% ^b	0%	25% ^d	^b dendritic innervation to the region ventral to the DP1m glomerulus ^d dendritic splitting
	DM3 adPN (emb; S9 Fig.)	<i>wt</i>	3	0%	0%	0%	
<i>Sema-1a</i> ^{P1}		4	25% ^b	0%	25% ^d	^b dendritic innervation to the region ventral to the DP1m glomerulus ^d a patch of dendritic innervation posterior to the VC1 glomerulus	

^a emb: embryonic-born; larval: larval-born

^{b, c, d} see the description in the column of notes

^e same types of PNs can be also seen in different classes of dendritic mis-targeting phenotypes in Table 2 and this supporting table