

**Figure 2 - figure supplement 7. Identity of the postsynaptic targets of olfactory receptor neurons in the antennal lobe detected by TRACT**

Cholinergic (ChAT+)and GABAergic (GABA+) neurons were labeled with GFP when the nSyb::CD19 ligand was expressed in most of the ORNs by the orco-lexA driver. The position of the cell bodies of the cholinergic and GABAergic GFP+ neurons was consistent with them being PNs and LNs, respectively. The images of two single optical section from two brain samples show ChAT immunostaining (top row, third column in blue) and GABA immunostaining (bottom row, third column in blue), indicating that some of the GFP+ neurons (top and bottom rows, second column in green) induced by nSyb::CD19+ ORNs (top and bottom rows, first column in red) are cholinergic (not GABAergic) PNs (arrows in (top row) and arrowhead in (bottom row)). Some GFP+ neurons on the lateral part of the antennal lobe are GABA+ and ChAT- (arrowheads in (top row) and arrows in (bottom row)), which indicates they are probably GABAergic LNs. First column: NSYB::CD19+ axons from ORNs (red); Second column: distribution of GFP+ neurons in the antennal lobe; Third column: GABA or ChAT immunostaining; Fourth column: merged images of GABA or ChAT (blue), GFP (green) and nSyb::CD19 (red). Scale bar= 20 μm.