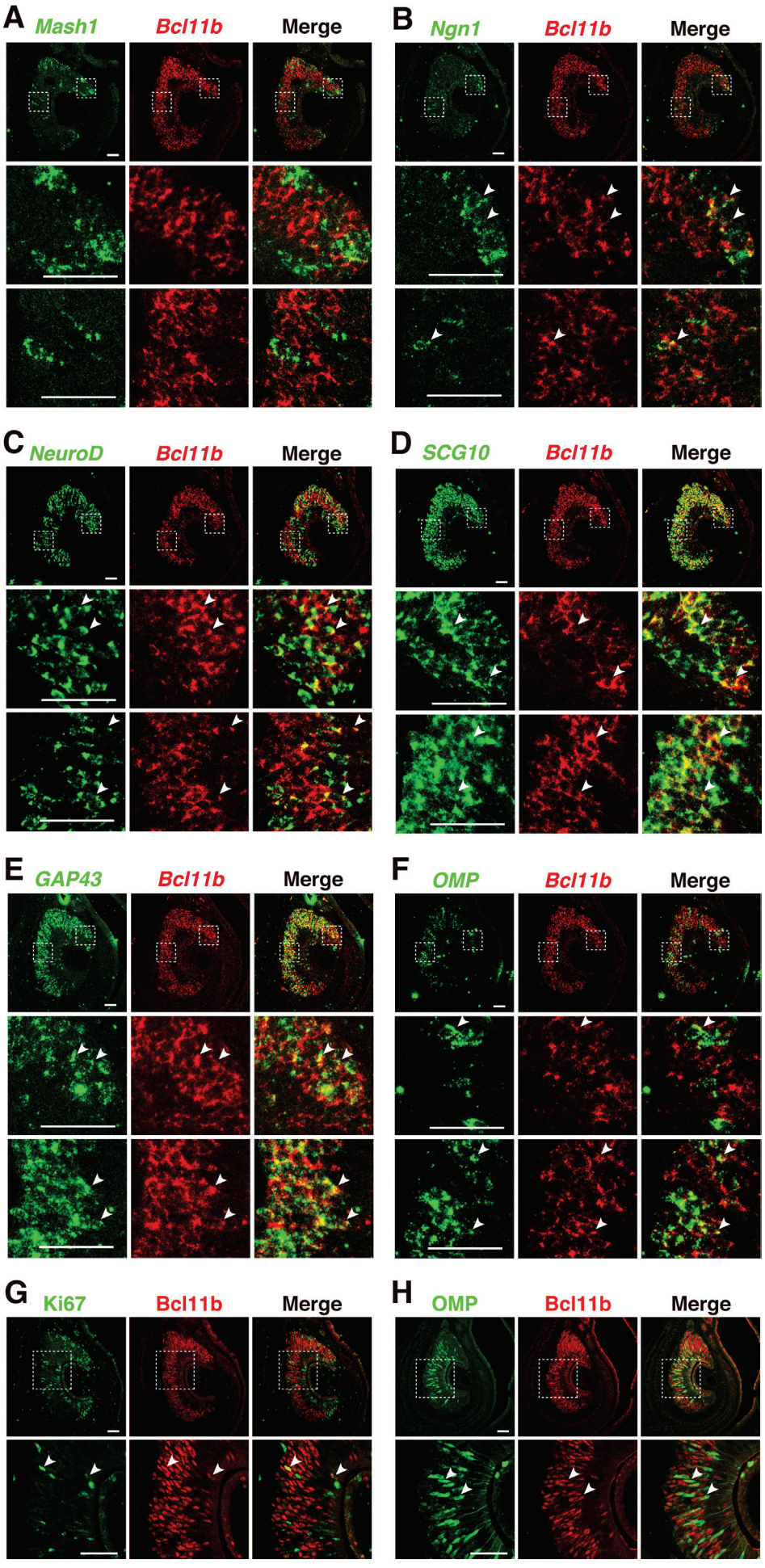
**Supplemental Figure S1**

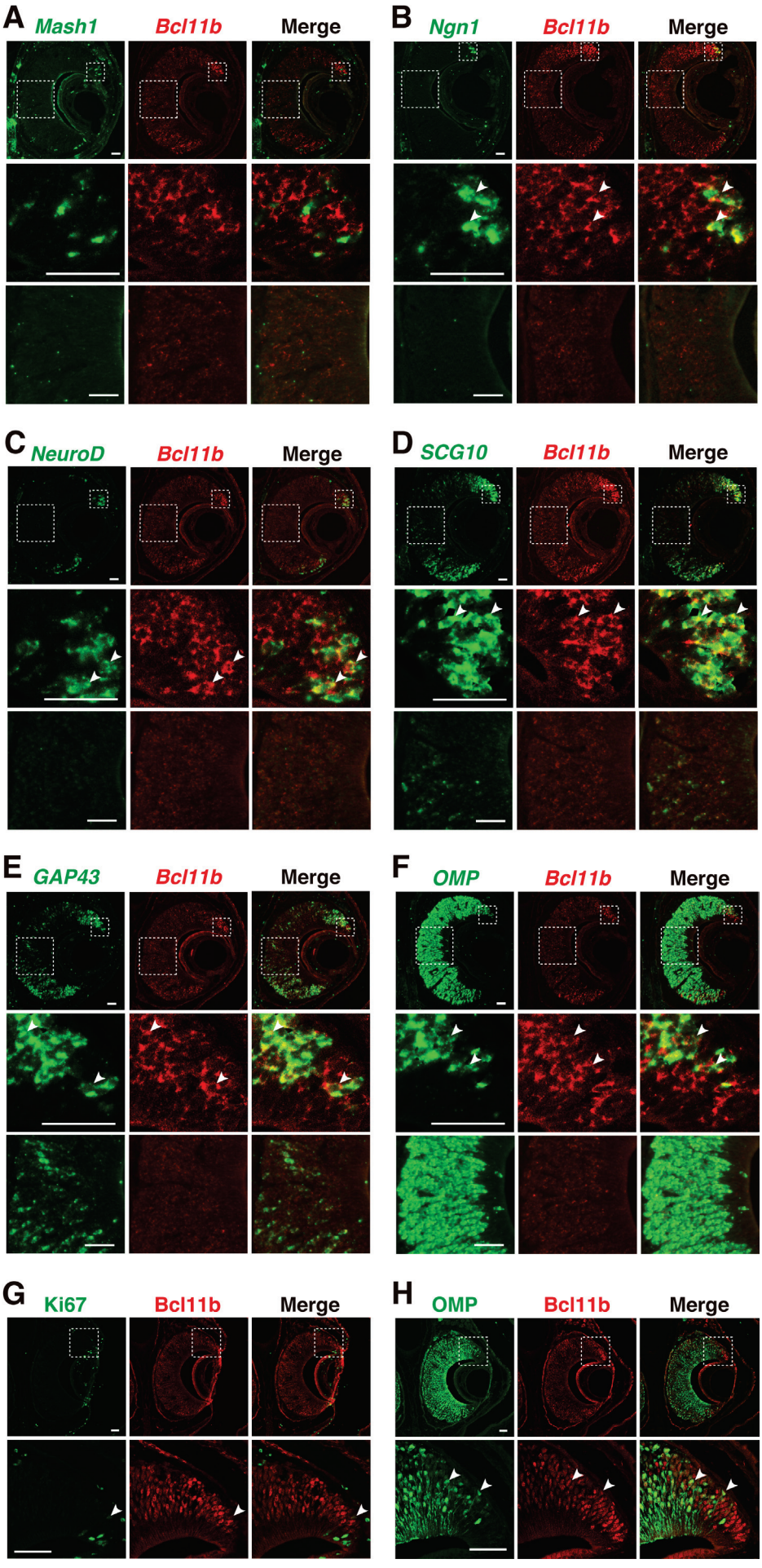


**Supplemental Figure S1**

**Expression of *Bcl11b* in the mouse vomeronasal epithelium at P0.**

***A-F***, *Bcl11b*-expressing cells were analyzed using two-color ISH with RNA probes for *Bcl11b* (red) in combination with marker genes (green) in coronal sections of the VNE at P0: *Mash1* (***A***, upper image: low magnification, middle: high magnification of the marginal region, lower: high magnification of the central region), *Ngn1* (***B***), *NeuroD* (***C***), *SCG10* (***D***), *GAP43* (***E***), *OMP* (***F***). *Bcl11b* was not co-expressed with *Mash1* (***A***) but was partially co-expressed with *Ngn1* (***B,*** arrowheads) and *NeuroD* (***C,*** arrowheads). Most of the *Bcl11b*-positive cells were co-labeled with the immature marker genes, *SCG10* and *GAP43* (***D, E,*** arrowheads). Expression of *OMP* expression was partially overlapped with that of *Bcl11b* (***F,*** arrowheads). ***G,*** Double-label fluorescent IHC using an anti-Ki67 antibody, a proliferation marker and an anti-Bcl11b antibody showed that a small population of Ki67-positive cells co-labeled with the anti-Bcl11b antibody (arrowheads), but most Bcl11b-positive cells were Ki67-negative. ***H,*** Double-label fluorescent IHC using anti-OMP antibody with anti-Bcl11b antibody showed OMP-positive cells partially co-immunostained with anti-Bcl11b antibody (arrowheads). Scale bars, 50 μm.

**Supplemental Figure S2**

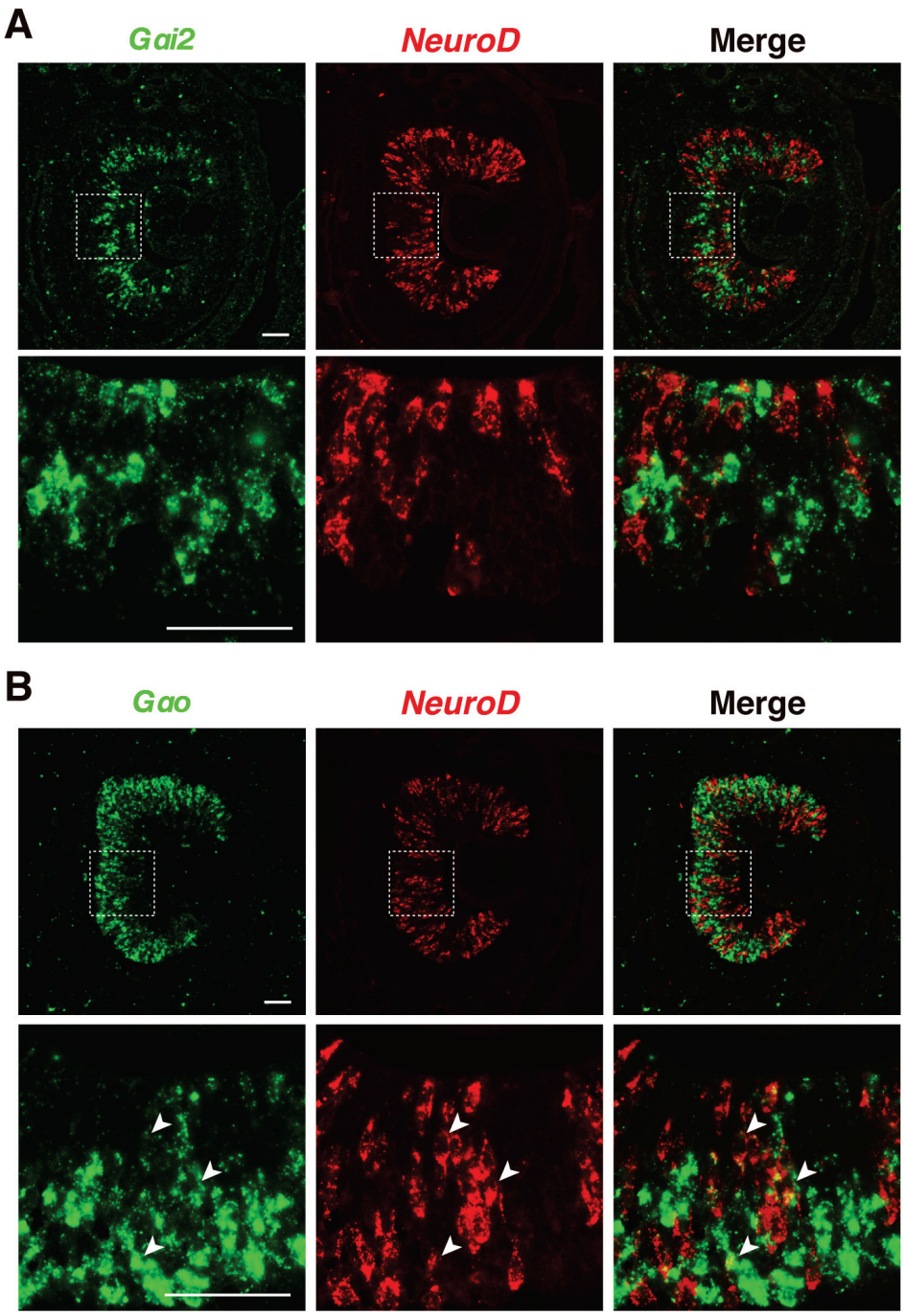


**Supplemental Figure S2**

**Expression of *Bcl11b* in the mouse vomeronasal epithelium at P14.**

***A-F***, *Bcl11b*-expressing cells were analyzed using two-color ISH with RNA probes for *Bcl11b* (red) in combination with marker genes (green) in coronal sections of the VNE at P14: *Mash1* (***A***, upper image: low magnification, middle: high magnification of the marginal region, lower: high magnification of the central region), *Ngn1* (***B***), *NeuroD* (***C***), *SCG10* (***D***), *GAP43* (***E***), *OMP* (***F***). Strong expression of *Bcl11b* was observed in the marginal regions of the VNE, where expression of marker genes for neuronal progenitors, precursors and immature neurons were observed. Expression of *Bcl11b* was weak in the central region of the VNE. *Bcl11b* was not co-expressed with *Mash1* (***A***) but was partially co-expressed with *Ngn1* (***B,*** arrowheads) and *NeuroD* (***C,*** arrowheads). Most of the *Bcl11b*-positive cells were co-labeled with the immature marker genes, *SCG10* and *GAP43* (***D, E,*** arrowheads). Most of the *OMP*-expressing cells distributed complementary to the location of high *Bcl11b*-expressing cells (***F,*** arrowheads indicate typical co-expressing cells). ***G,*** Double-label fluorescent IHC of using anti-Ki67 antibody and anti-Bcl11b antibody showed that some Ki67-positive cells co-labeled with the anti-Bcl11b antibody. ***H,*** Double-label fluorescent IHC using anti-OMP antibody with anti-Bcl11b antibody showed *OMP*-immunostaining was mainly detected in the VNE other than the marginal regions, where strong *Bcl11b*-immunostaing was observed. Scale bars, 50 μm.

**Supplemental Figure S3**




**Supplemental Figure S4**

**Characterization of *Gα*$_{i2}$- and *Gα*$_o$-expressing VSNs**.

***A, B,*** Co-expression of *Gα*$_{i2}$ and *Gα*$_o$ with *NeuroD* were analyzed by two-color ISH at P0. Co-expression of *Gα*$_{i2}$ (green) and *NeuroD* (red) was not detected (***A***), whereas a few double positive cells for *Gα*$_o$ (green) and *NeuroD* (red) were observed (***B***, arrowheads), suggesting expression of *Gα*$_o$ was earlier than that of *Gα*$_{i2}$ during the differentiation of VSNs. Scale bars, 50 μm.