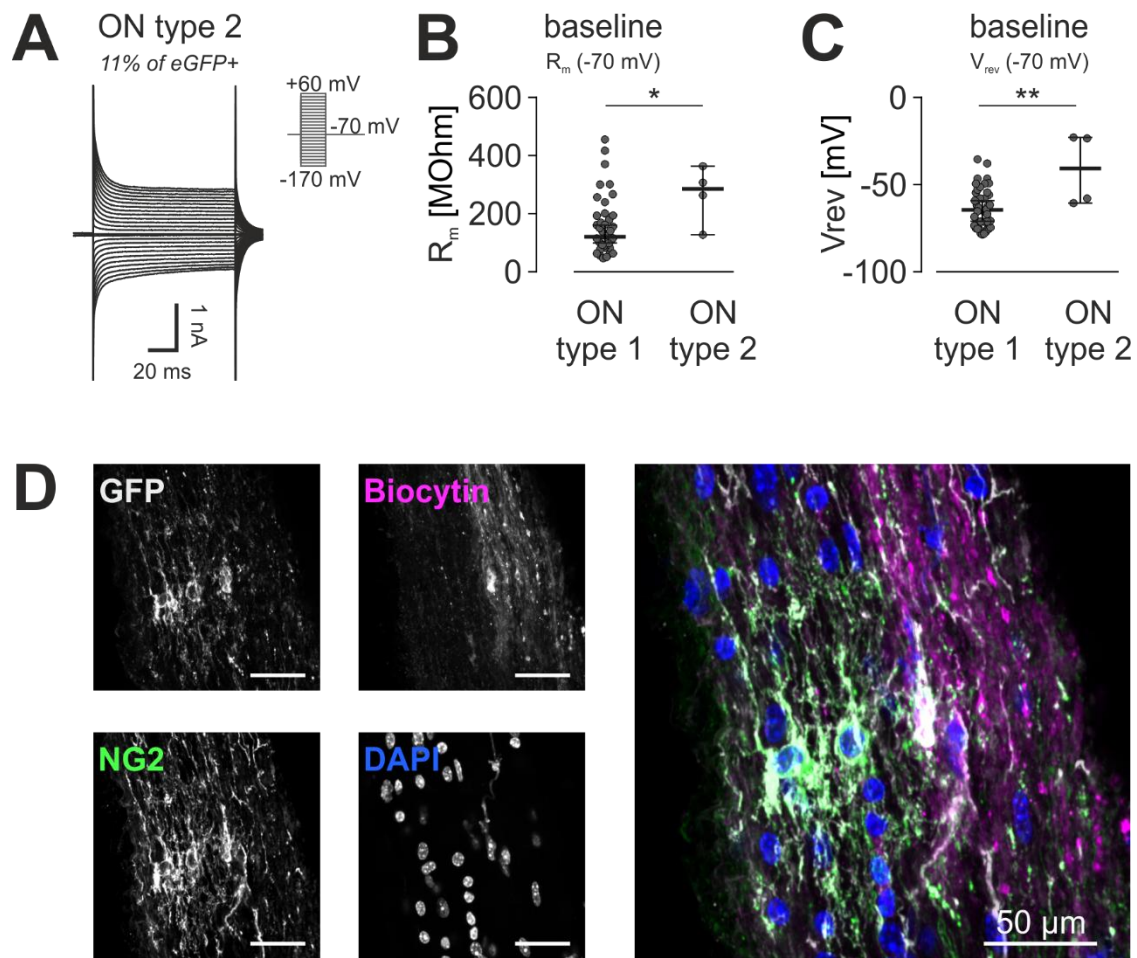
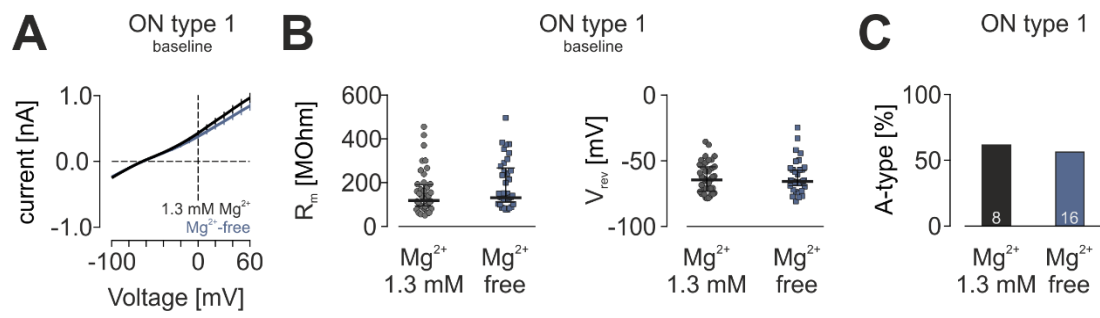
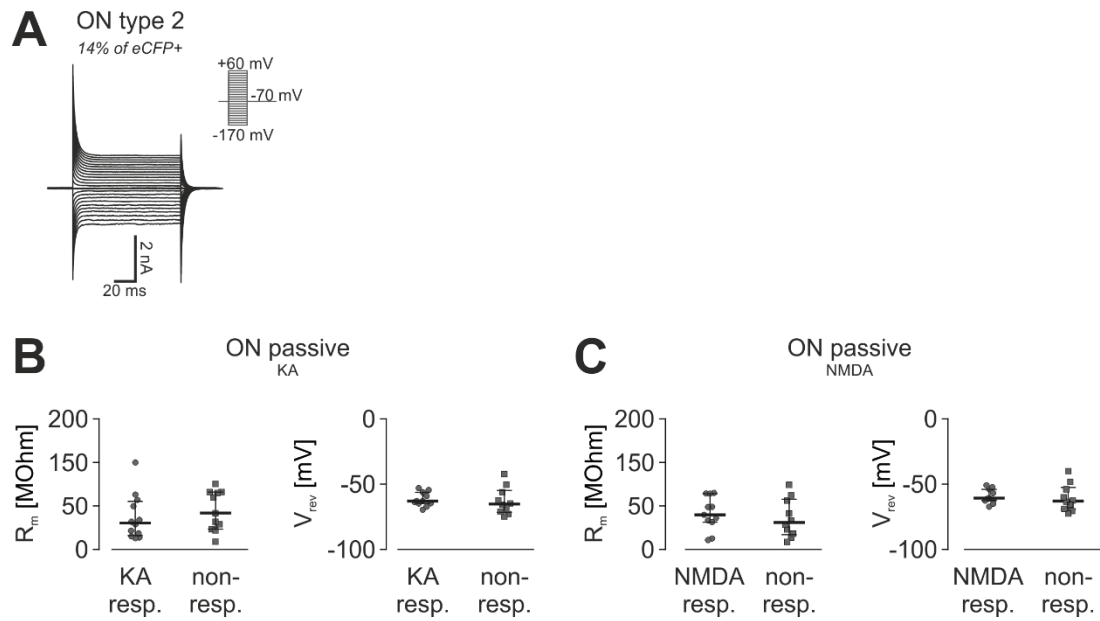




Suppl. Fig. 1. Electrophysiological properties of ON type 2 cells. (A) Representative membrane currents of ON type 2 cells (~11% of recorded cells). (B–C) Quantification of baseline membrane resistance and reversal potential in ON type 1 ($n = 42$) and type 2 cells ($n = 4$) which were significantly different (Mann-Whitney U tests, Bonferroni adjusted p -level: 0.025). (D) Representative image of ON stained against GFP (hGFAP-eGFP), biocytin (patched ON type 1 cell), NG2 and DAPI.



Suppl. Fig. 2. Baseline membrane properties of ON type 1 cells under Mg^{2+} -free conditions. Average I-V relationships (A), quantification of membrane resistance (left) and reversal potential (right, B) and expression of A-type K^+ currents (C) in ON type 1 cells under Mg^{2+} -containing (1.3 mM) and Mg^{2+} -free conditions.



Suppl. Fig. 3. Additional information on ON Cx43-ki-eCFP+ cells. **(A)** Representative membrane currents of eCFP+ ON type 2 cells in response to voltage steps (–170 mV to +60 mV), illustrating their characteristic time- and voltage-dependent current profile. ON type 2 cells represent the minority (~14%) of eCFP+ cells. **(B)** Quantification of membrane resistance (left) and reversal potential (right) showing no differences in KA-responding and non-responding **ON type 1** cells. **(C)** Same analysis as in (B), but for NMDA- responding and non-responding ON passive cells.