Supporting Information

Villares et al. 10.1073/pnas.1419300112

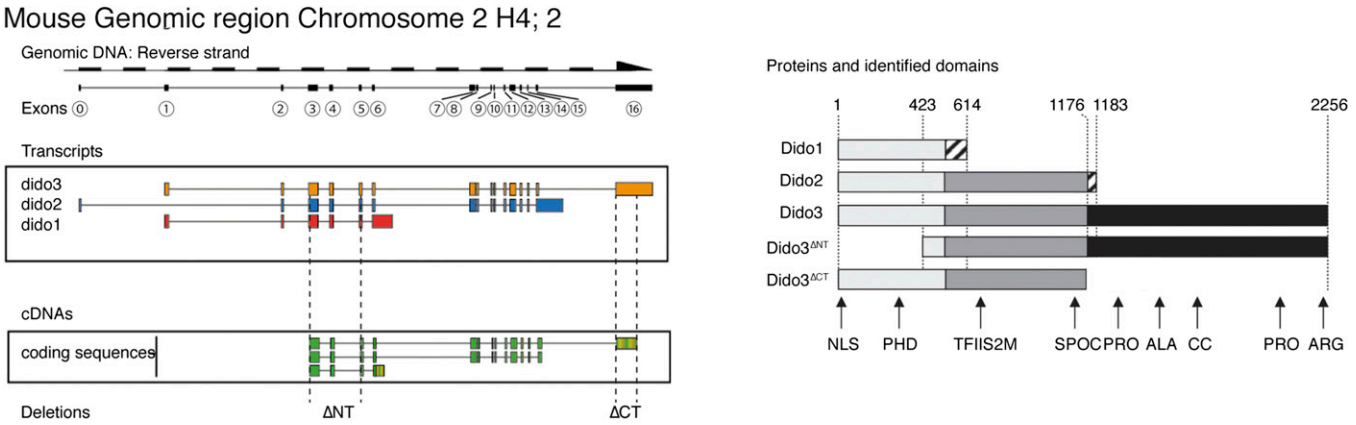

Fig. S1. (*Left*) Genetic map of the murine *dido* gene, showing location of 16 exons, three messages generated by differential splicing and coding regions, and the two deletions studied here. (*Right*) Scheme of the three protein isoforms and the artificial deletions used in this study.

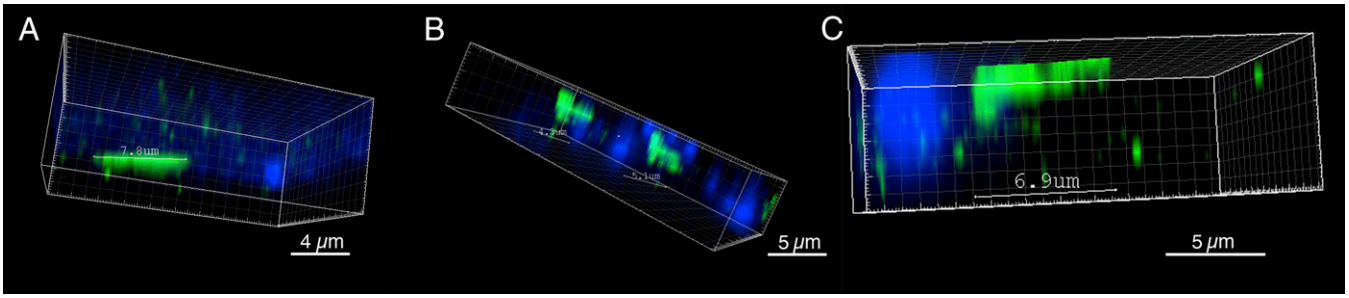

Fig. S2. Representative image of cilia measurement. The 3D reconstructions of confocal images were analyzed. Only cilia fully enclosed in the volume (*A* and *B*) were included. Cilia with one end outside the acquired planes (*C*) were discarded.

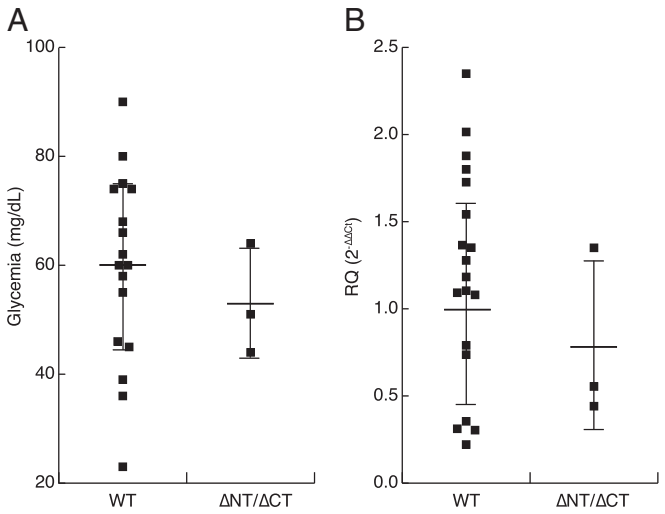

Fig. S3. Glucose metabolism in starved neonates. After a 4-h starvation, blood glucose levels were determined (*A*) and glycogenolysis (*B*) was monitored in liver cDNA samples by RT-PCR of glucose-6-phosphatase (G6PC) and normalized to β-actin and glyceraldehyde 3-phosphate dehydrogenase (GAPDH). Student's *t* test showed no significant differences between WT and *dido*$^{\Delta NT/\Delta CT}$ groups. Relative quantification (RQ) was calculated as $2^{-\Delta\Delta Ct}$ on the mean WT values. Primers are as follows: GAPDH, 5′ CCCATCACCATCTTCCAGGA and 5′ CGACATACTCAGCACCGGC; β-actin, 5′ GGCACCACACCTTCTACAATG and 5′ TGGATGG-CTACGTACATGGCTG; and G6PC, 5′ CAAGATGACGTTCAAACAC and 5′ ATGGTCACTTCTACTCTTGC.

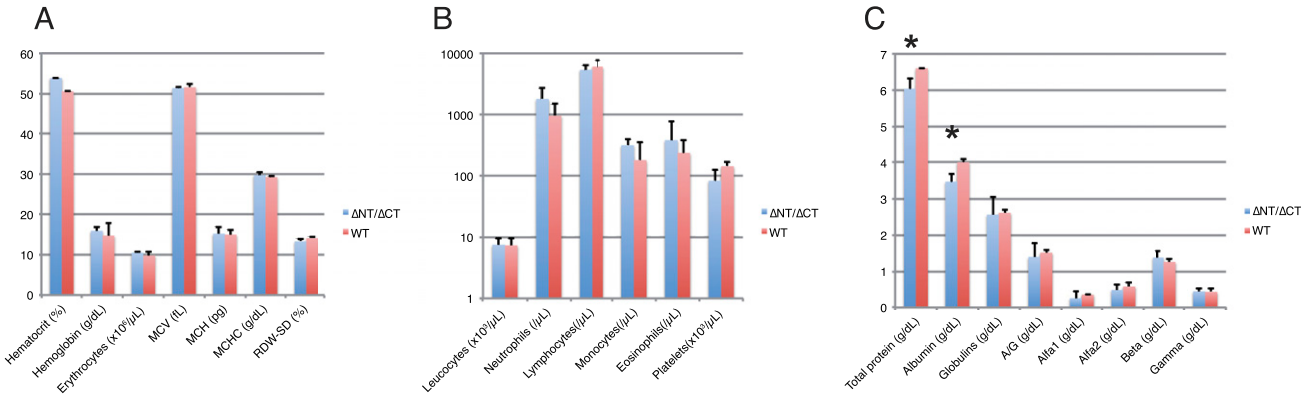

Fig. S4. Hematology values for *dido*$^{\Delta NT/\Delta CT}$ and WT mice (mean + SD, $n = 3 + 3$). (*A*) Erythrocyte series. MCH, mean corpuscular hemoglobin; MCHC, mean corpuscular hemoglobin concentration; MCV, mean corpuscular volume; RDW-SD, red blood cell distribution width. (*B*) White cell series. (*C*) Biochemical profile. A/G, albumin/globulin ratio.

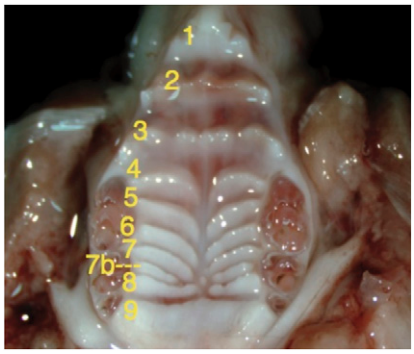

Fig. S5. Representative image of adult palate in surviving *dido*$^{\Delta NT/\Delta CT}$ mice. A complete set of rugae is observed.

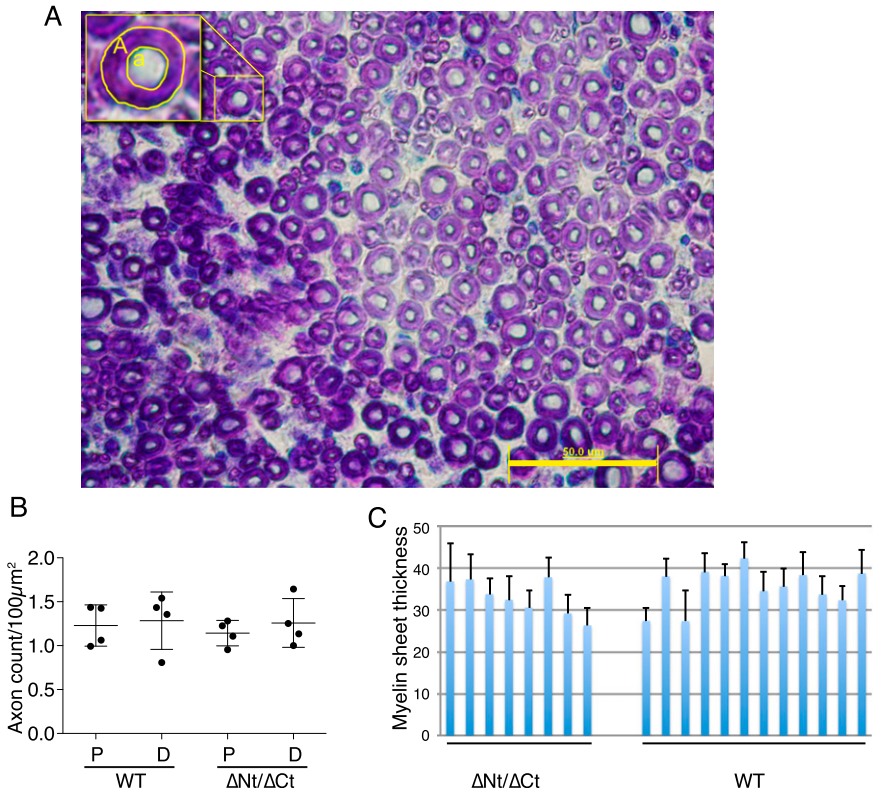

Fig. S6. Myelin thickness determination. Frozen sections of proximal and distal parts of sciatic nerves from four *dido*$^{\Delta NT/\Delta CT}$ and six WT mice were toluidine blue stained (*A*). (Yellow scale bar, 50 μm.) We selected 20 axons per sample by superimposing a grid on the image. Outer (*A*) and inner (*a*) areas of each myelin sheet were calculated with Photoshop CS5 after manual outlining of perimeters. Mean thickness (t) was calculated by the formula $t = (A/\pi)^{1/2} - (a/\pi)^{1/2}$. Axon density (*B*) was calculated for the full nerve section by manual counting. Individual values are given for proximal (P) and distal (D) sections, and mean ± SD. (*C*) Mean ± SD myelin thickness in individual samples, in arbitrary units. There were no significant differences.

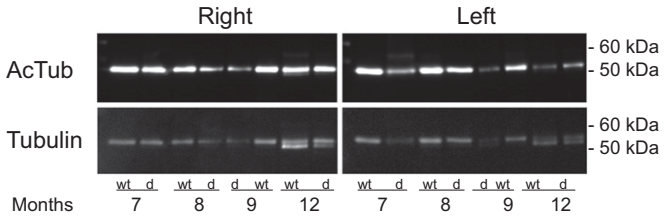

Fig. S7. Acetylated tubulin determination. Western blots of right and left sciatic nerve protein extracts from WT and *dido*$^{\Delta NT/\Delta CT}$ (d) mice.