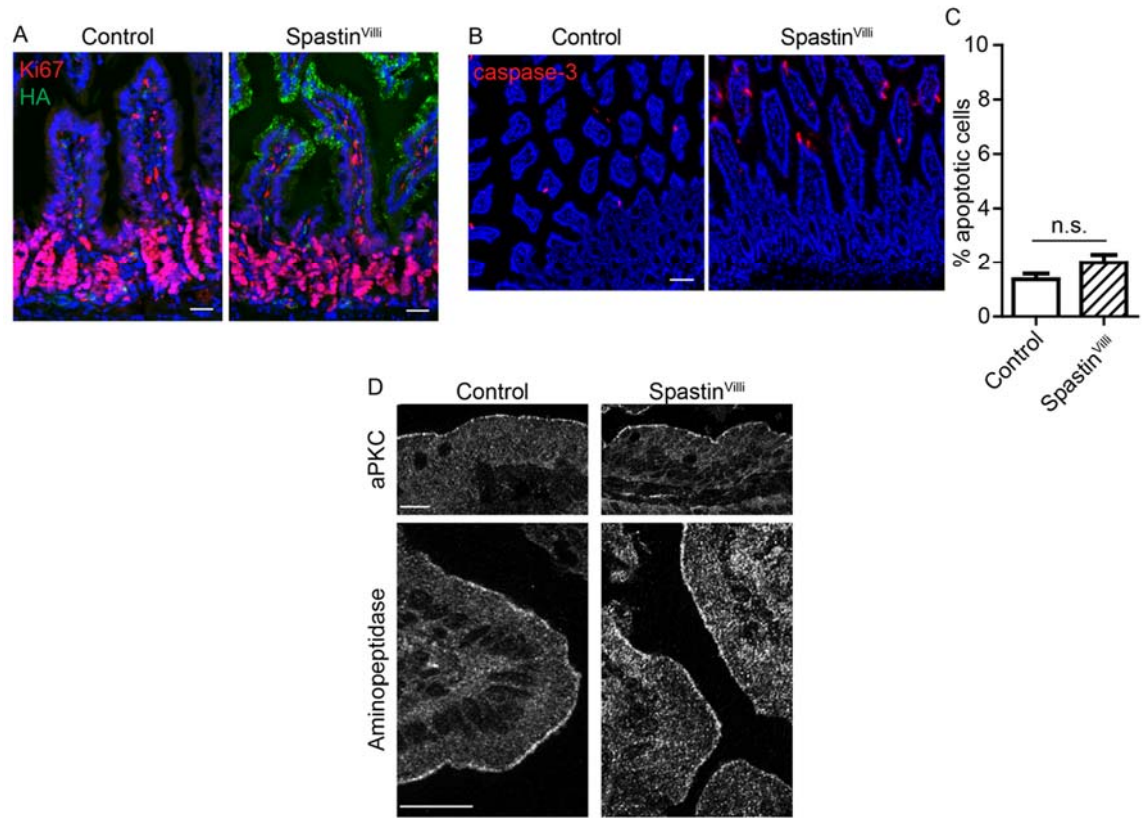


Supplemental Materials

Molecular Biology of the Cell

Muroyama et al.



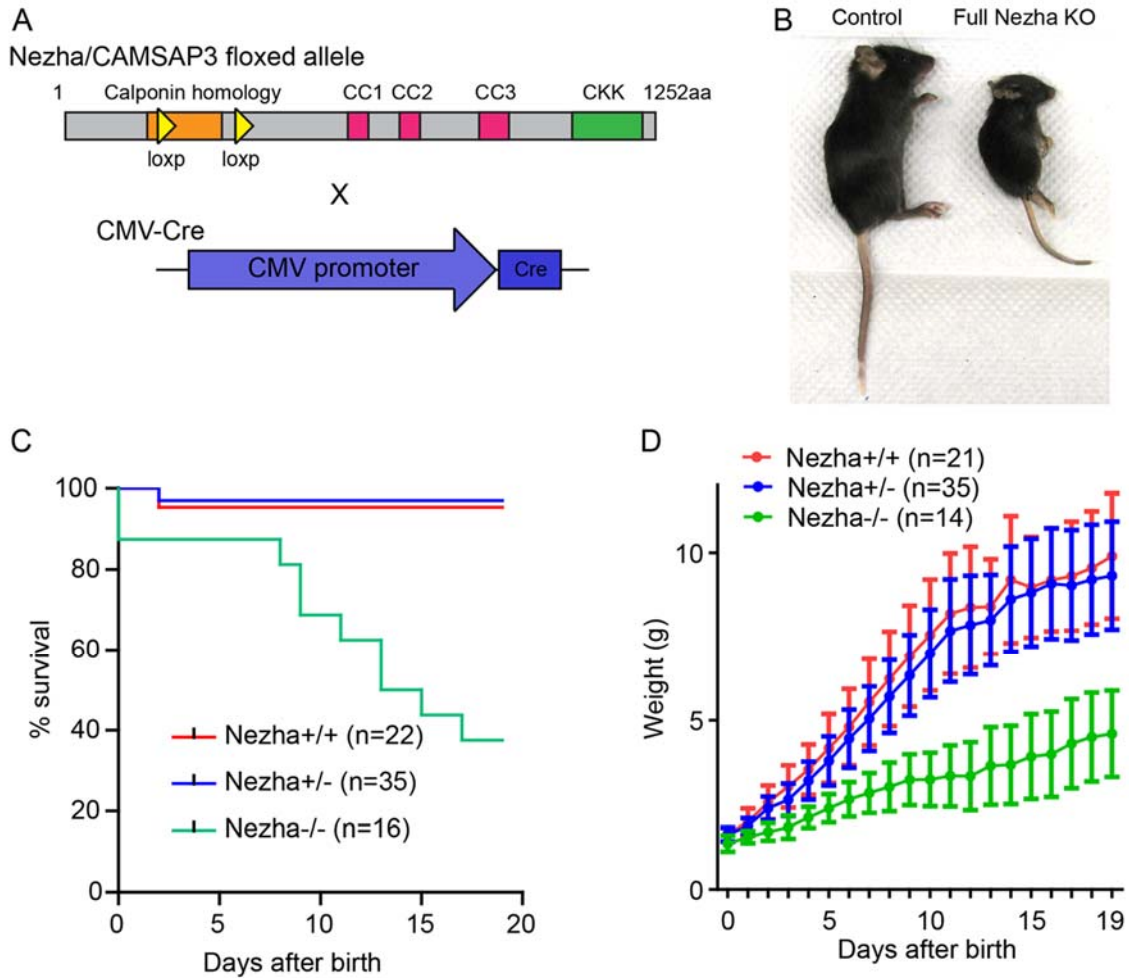
Supplemental Figure 1. Additional characterization of Spastin^{Villi} mice.

A. Ki67+ cells remain restricted to crypts of Spastin^{Villi} mice. Scale-25µm.

B. Cleaved-caspase-3 staining in control and Spastin^{Villi} mice. Scale-50µm.

C. Quantification of caspase-3-positive cells in control and Spastin^{Villi} mice. n=3 mice for each genotype. n.s.-not significant.

D. Localization of aPKC and aminopeptidase in control and Spastin^{Villi} mice. Scale-20µm.



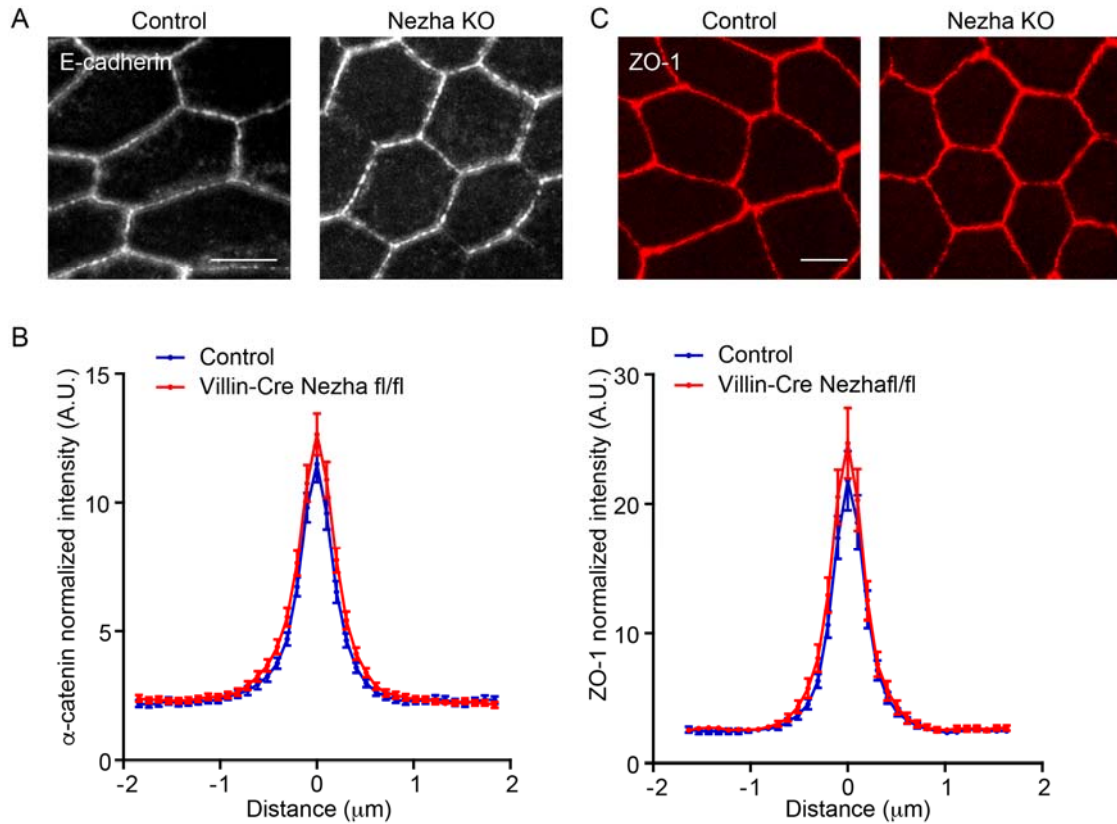
Supplemental Figure 2. Growth phenotype of full Nezha knockout mouse.

A. Alleles used to generate full Nezha/CAMSAP3 deletion mice.

B. Pictures of P20 control and full Nezha KO mice.

C. Kaplan-Meier plot of Nezha+/+, Nezha+/-, and Nezha-/- mice.

D. Growth curves of Nezha+/+, Nezha+/-, and Nezha-/- mice until weaning. Error bars show S.D.



Supplemental Figure 3. Adherens and tight junctions are unaffected by Nezha deletion *in vivo*.

A. E-cadherin localization in control and Nezha KO mice.

B. Lines scans of junctional α -catenin fluorescence intensity in control and Nezha KO mice. n=70 line scans from at least three mice per genotype.

C. ZO-1 localization in control and Nezha KO mice.

D. Line scans of ZO-1 fluorescence intensity across tight junctions in control and Nezha KO mice. n=70 line scans from at least three mice per genotype.

All scale bars are 5 μ m.