

SUPPLEMENTAL DATA

CASPASE-1 DEFICIENCY IN MICE REDUCES INTESTINAL TRIGLYCERIDE ABSORPTION AND HEPATIC TRIGLYCERIDE SECRETION

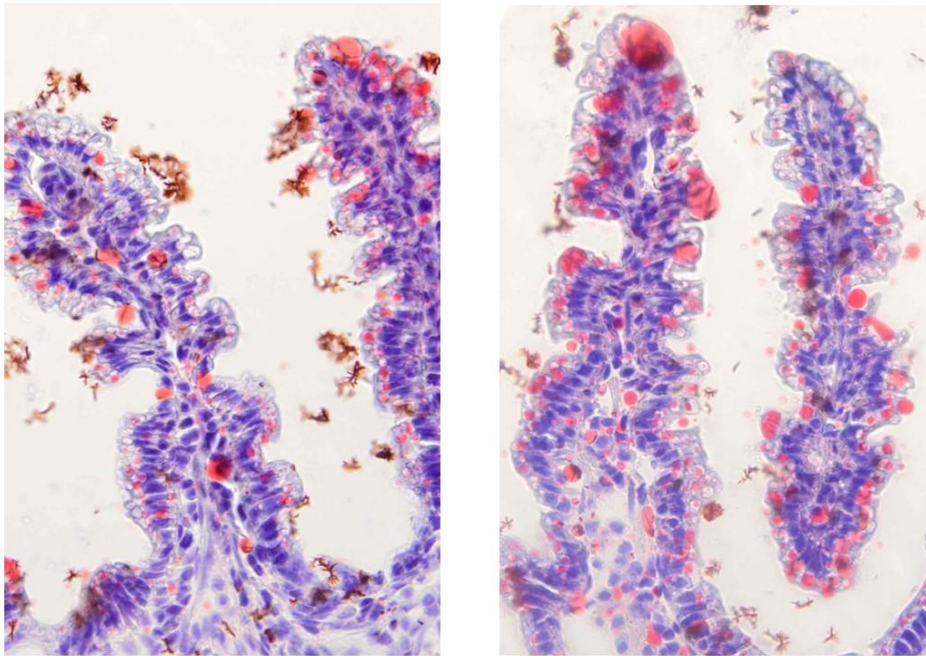
Janna A. van Diepen^{1,5,*}, Rinke Stienstra^{5,6*}, Irene O.C.M. Vroegrijk¹, Sjoerd A.A. van den Berg², Daniela Salvatori³, Guido J. Hooiveld⁶, Sander Kersten⁶, Cees J. Tack⁵, Mihai G. Netea⁵, Johannes W.A. Smit^{1,5}, Leo A.B. Joosten⁵, Louis M. Havekes^{1,4,7}, Ko Willems van Dijk^{1,2}, Patrick C.N. Rensen¹

Depts. of ¹General Internal Medicine, Endocrinology and Metabolic Diseases, ²Human Genetics, ³Anatomy and Embryology and ⁴Cardiology, Leiden University Medical Center, Leiden, The Netherlands; ⁵Dept. of Medicine, Radboud University Nijmegen Medical Centre, and Nijmegen Institute for Infection, Inflammation and Immunity (N4i), Nijmegen, The Netherlands; ⁶Nutrition, Metabolism, and Genomics group, Division of Human Nutrition, Wageningen University, Wageningen; ⁷Netherlands Organization for Applied Scientific Research-Biosciences, Gaubius Laboratory, Leiden, The Netherlands.

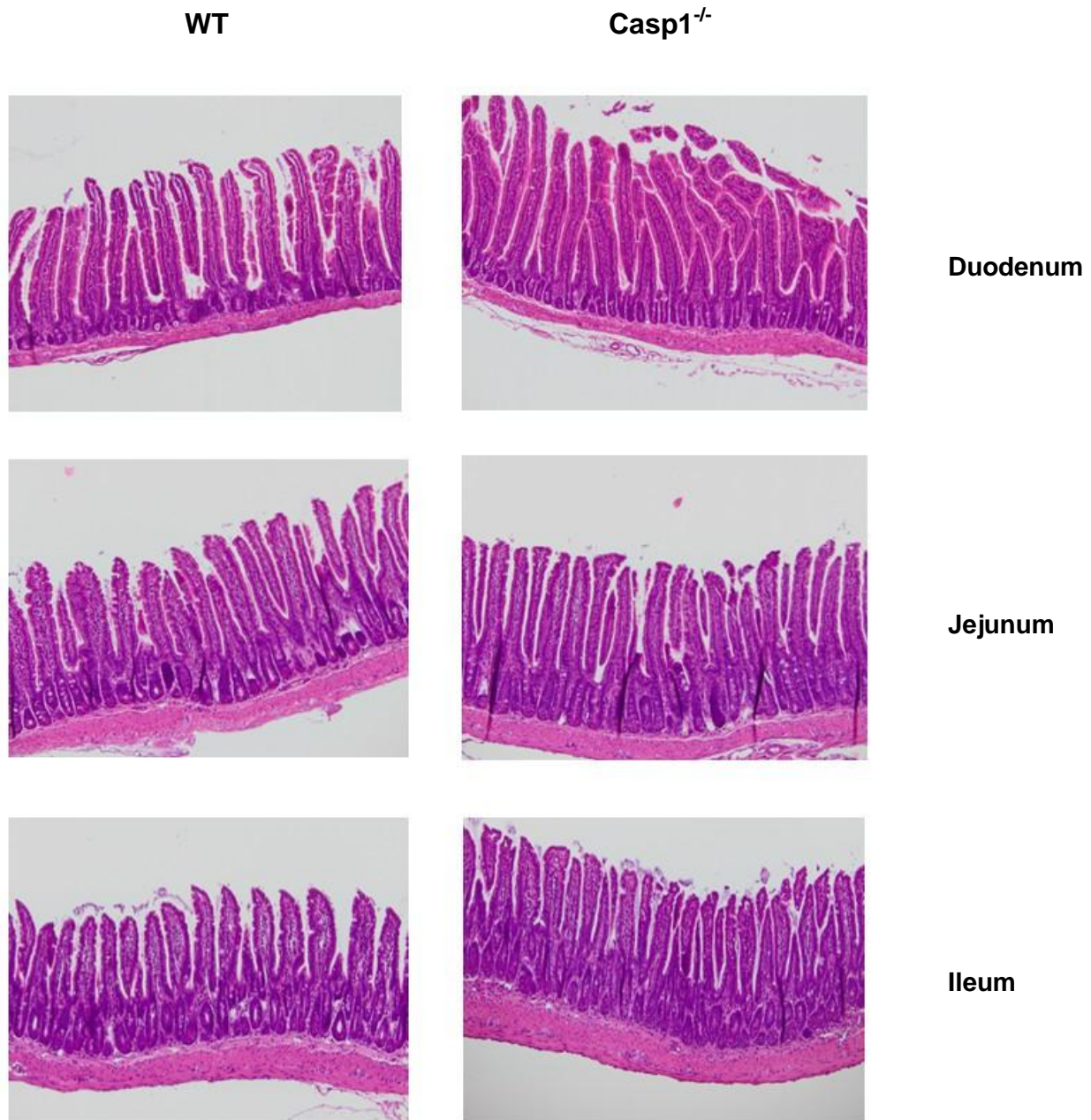
- Supplemental Figure S1:** Oil Red O staining of jejunum of caspase-1^{-/-} and wild-type mice.
- Supplemental Figure S2:** HE staining of duodenum, jejunum and ileum of caspase-1^{-/-} and wild-type mice
- Supplemental Figure S3:** Fecal cholesterol and phospholipid content is similar between caspase-1^{-/-} and wild-type mice.
- Supplemental Figure S4:** Caspase-1 deficiency does not affect hepatic MTP and DGAT1 protein levels, but tends to reduce SREBP1c levels.
- Supplemental Figure S5:** Caspase-1 deficiency does not affect plasma β -hydroxybutyrate levels.

WT

Casp1^{-/-}

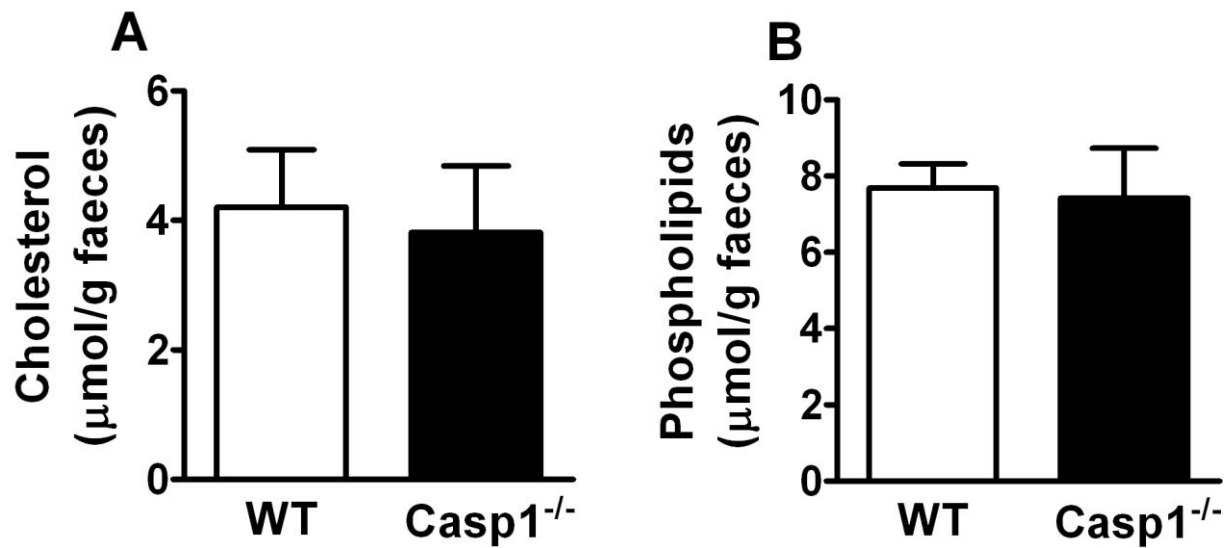


Supplemental Figure S1. Oil Red O staining of jejunum of caspase-1^{-/-} and wild-type mice. Jejunum was obtained from from caspase-1^{-/-} (Casp1^{-/-}) and wild-type (WT) mice 2 h after an oral lipid load with olive oil. Frozen sections were stained with Oil Red O. No differences for lipid content of enterocytes was observed between genotypes. 40x magnification.



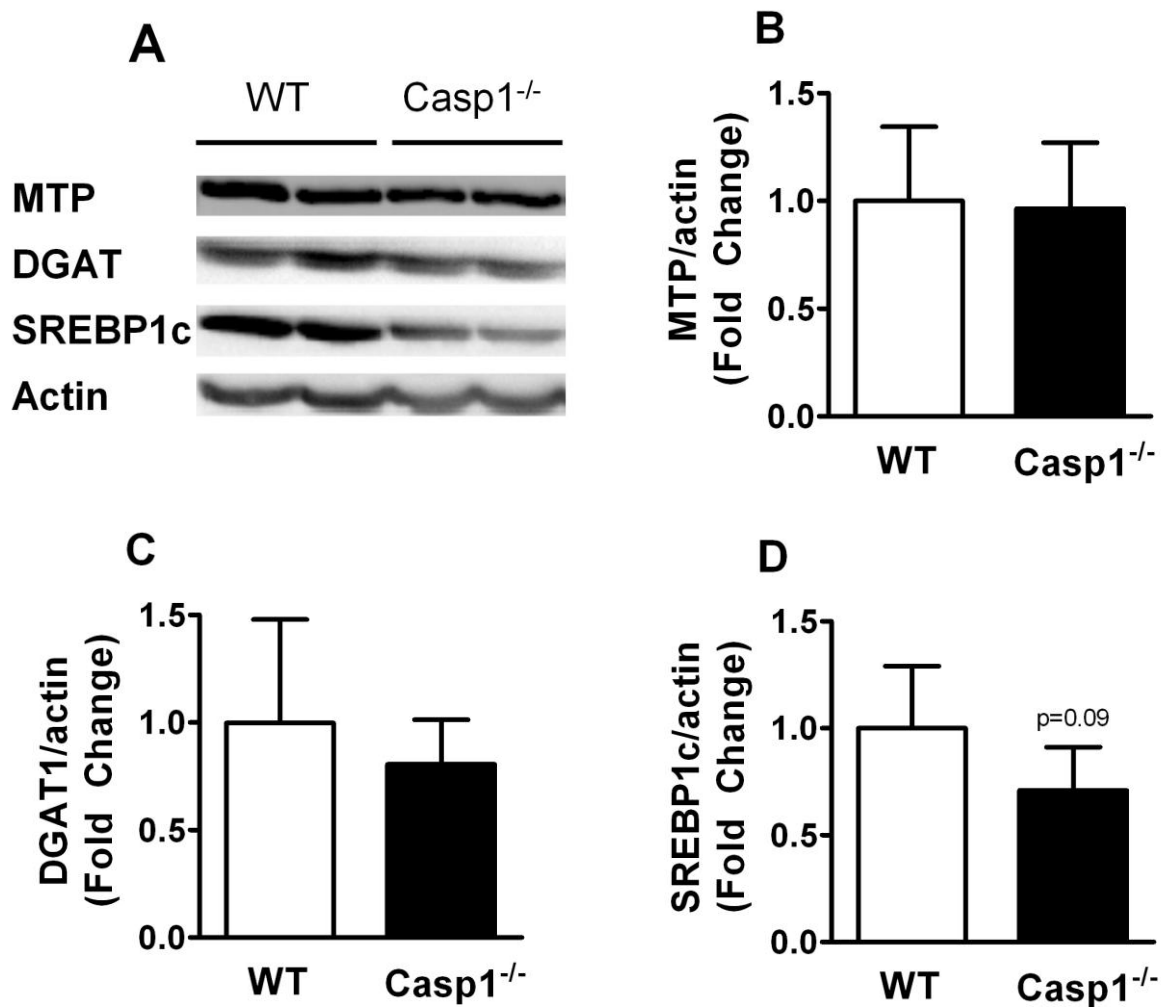
Supplemental Figure S2. HE staining of duodenum, jejunum and ileum of caspase-1^{-/-} and wild-type mice.

Intestinal tract was obtained from caspase-1^{-/-} (Casp1^{-/-}) and wild-type (WT) mice. Paraffin embedded tissues were stained with HE. No differences were observed in morphology between genotypes. 10x magnification.



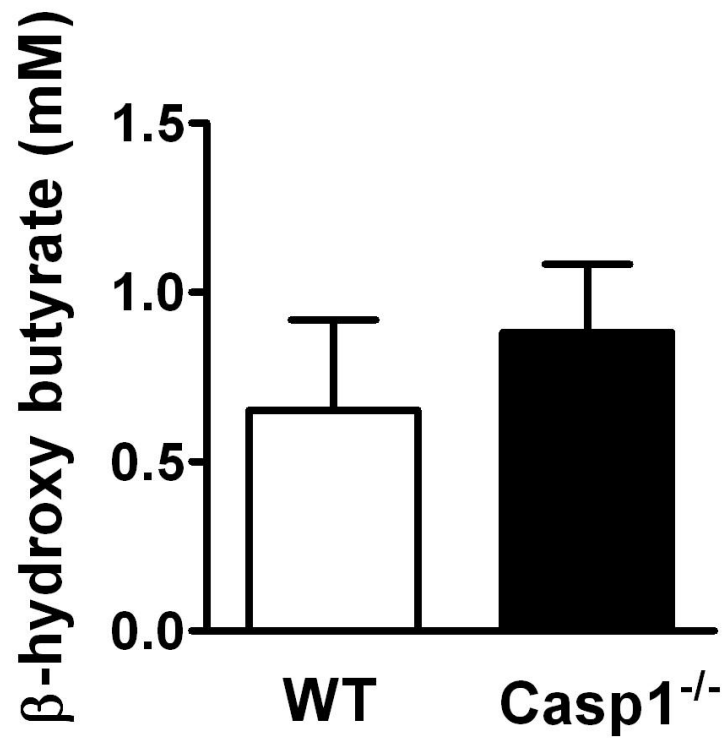
Supplemental Figure S3. Fecal cholesterol and phospholipid content is similar between caspase-1^{-/-} and wild-type mice.

Feces were collected from individually housed wild-type (WT) and caspase-1^{-/-} (Casp1^{-/-}) mice fed a chow diet and fecal cholesterol (A) and phospholipids (B) were determined. Values are means \pm SD (n=8).



Supplemental Figure S4. Caspase-1 deficiency does not affect hepatic MTP and DGAT1 protein levels, but tends to reduce SREBP1c levels.

Caspase-1^{-/-} (Casp1^{-/-}) and wild-type (WT) mice were fed a chow diet and sacrificed after a 4 h fast. MTP, DGAT1 and SREBP1c levels were measured in liver tissue by Western blots and Actin was used as an internal control. Representative Western blots are shown for 2 mice per group (A,B,C). Ratios of MTP (D), DGAT1 (E), SREBP1c (F) proteins over Actin levels were quantified. Values are means ± SD (n=5-6).



Supplemental Figure S5. Caspase-1 deficiency does not affect plasma β -hydroxybutyrate levels.

Caspase-1^{-/-} ($Casp1^{-/-}$) and wild-type (WT) mice were fasted for 4 h and β -hydroxybutyrate was determined in plasma. Values are means \pm SD (n=5-6).