

Supplemental Information

Chronic cerebral hypoperfusion shifts the equilibrium of amyloid β oligomers to aggregation-prone species with higher molecular weight

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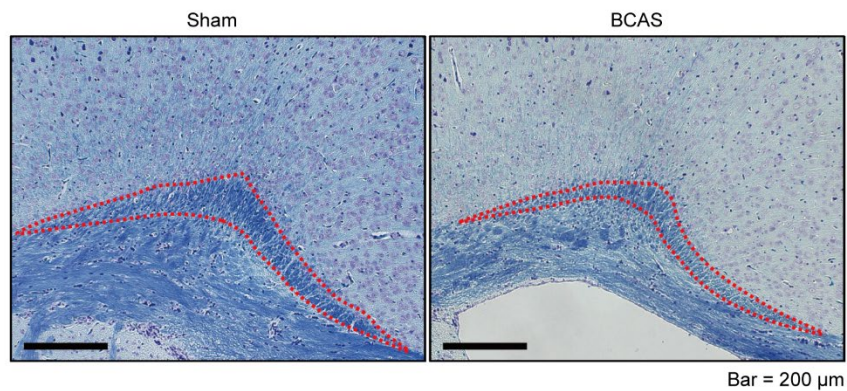
List of Figures

Supplemental Figure S1. BCAS decreased the area of corpus callosum with refraction

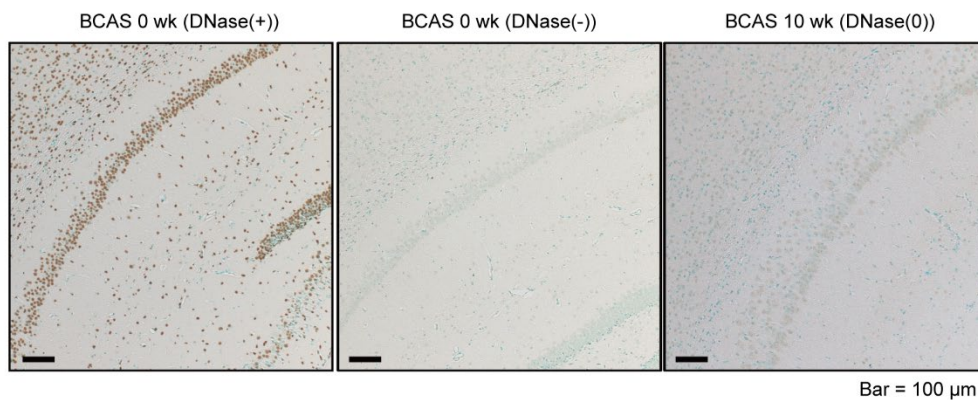
Supplemental Figure S2. BCAS had no effect on APP processing and A β metabolism in APP/PS1 mice

Supplemental Figure S3. Serial detergent fractionation assay of APP/PS1 mice brain after sham- or BCAS operation.

(a) KB staining



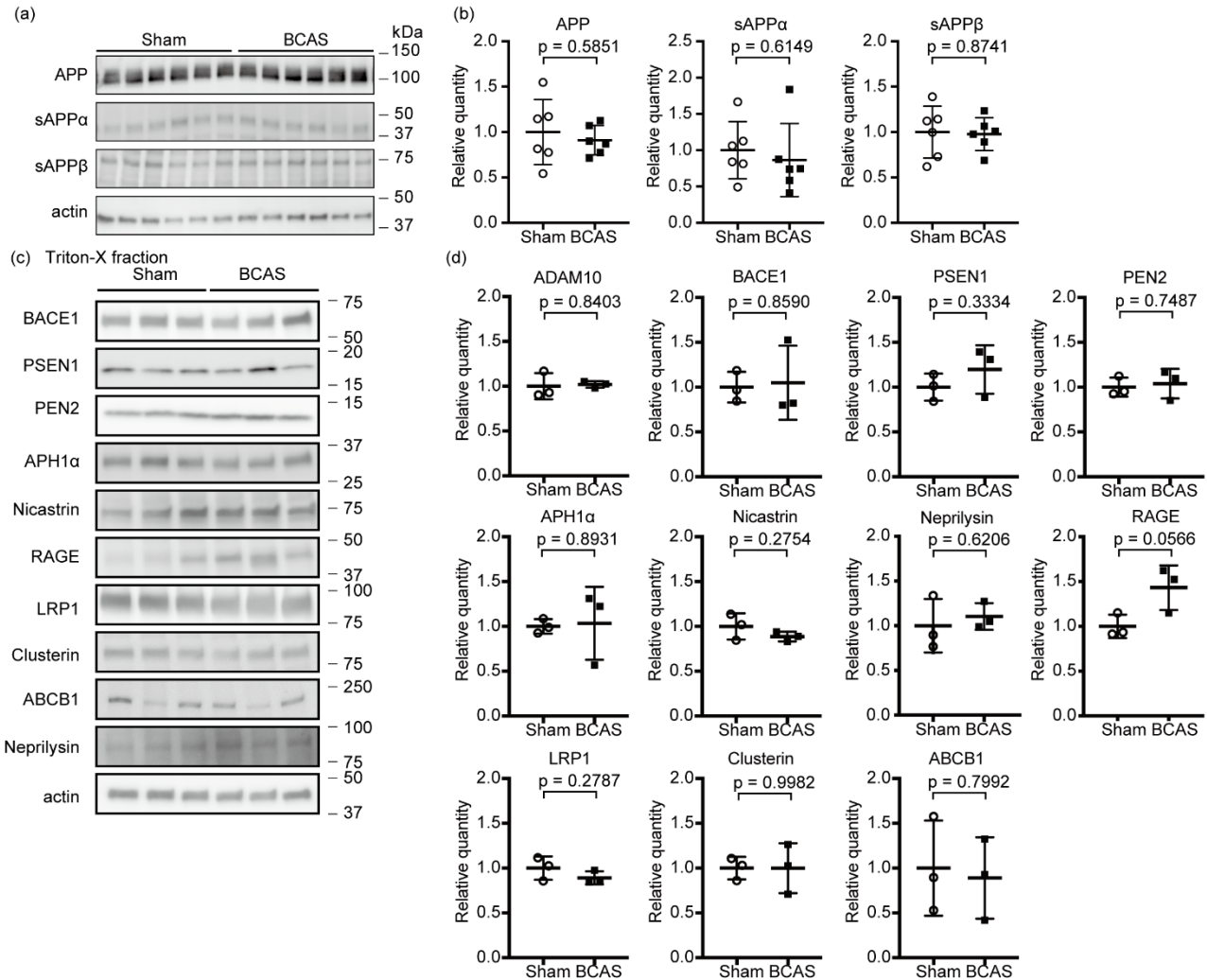
(b) TUNEL assay



Supplemental Figure S1. BCAS decreased the area of the cingulum with refraction

(a) KB staining of the coronal section of the mice brain. The corpus callosum was surrounded by red dot-line. Bar = 200 μ m. (b) TUNEL assay of the hippocampus at week 0 or 10 after BCAS operation. Assays with DNase treated sections were used as positive controls. Bar = 100 μ m.

BCAS A β



Supplemental Figure S2. BCAS had no effect on APP processing and A β metabolism in the brain of APP/PS1

mice

(a) Quantifications of APP, sAPP α and sAPP β in the Triton-X fraction by western-blot. (b) Quantification of panel

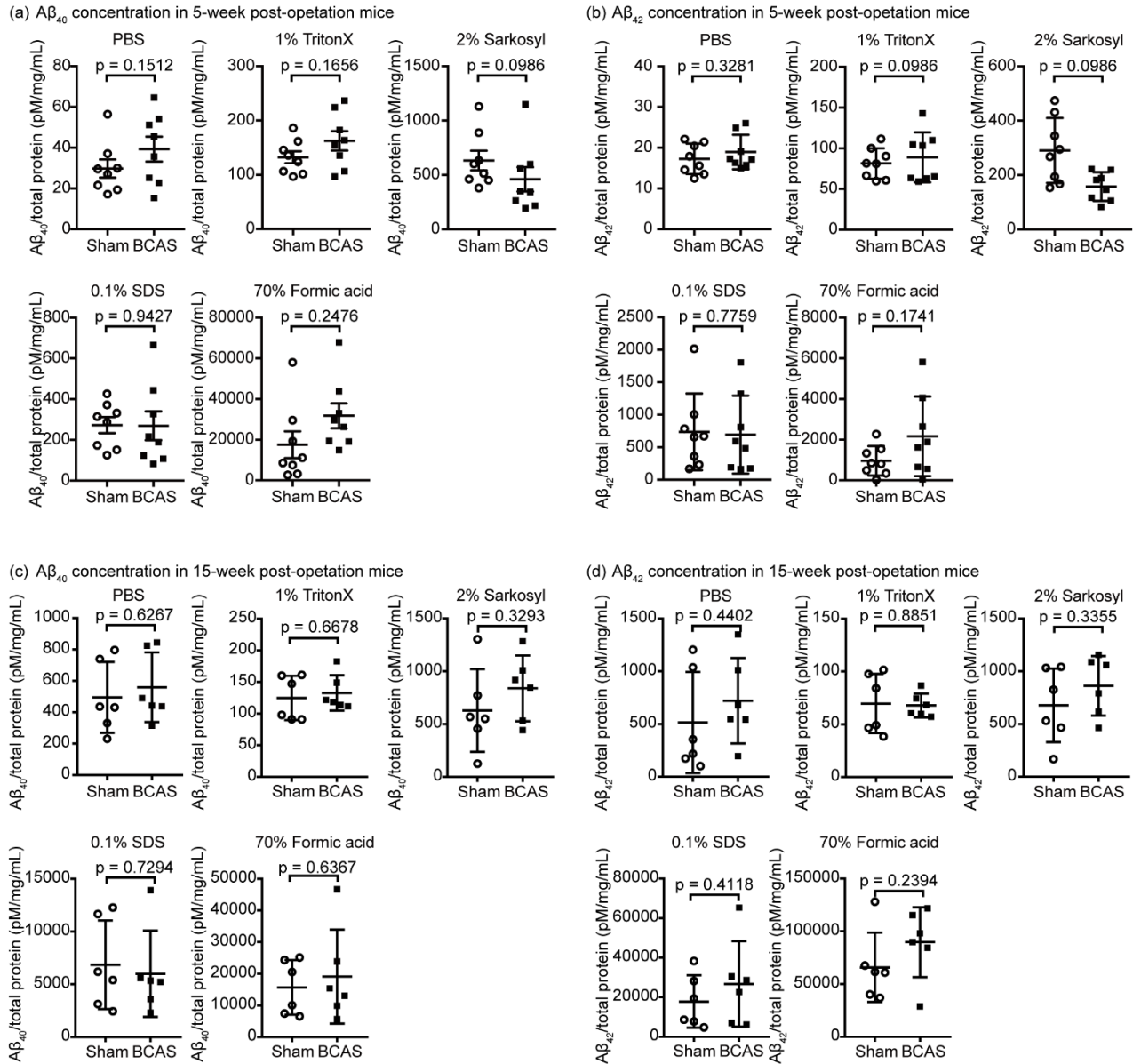
(a). Actin-normalized level of expression of each protein in the Triton-X fraction was normalized to sham = 1. (c)

Quantifications of APP and A β processing enzymes in the total brain homogenates by western-blot. (d)

Quantification of panel (d). Relative quantity of each protein to actin expression in Triton-X or PBS fraction was

normalized to sham = 1.

BCAS A β

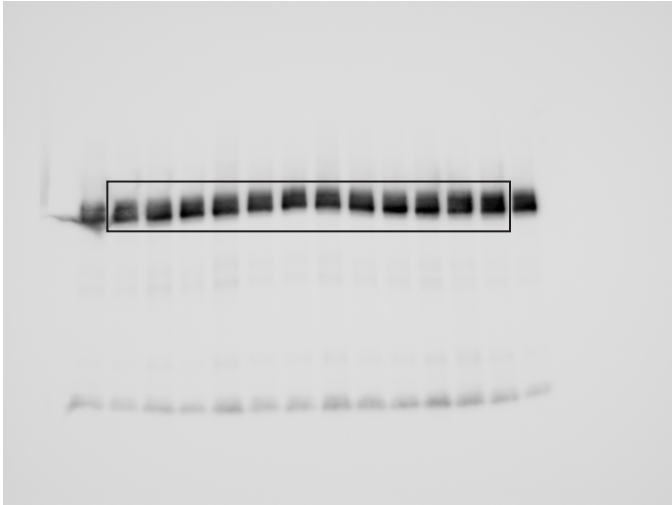


Supplemental Figure S3. Serial detergent fractionation assay of sham- or BCAS-operated APP/PS1 mice brain homogenates.

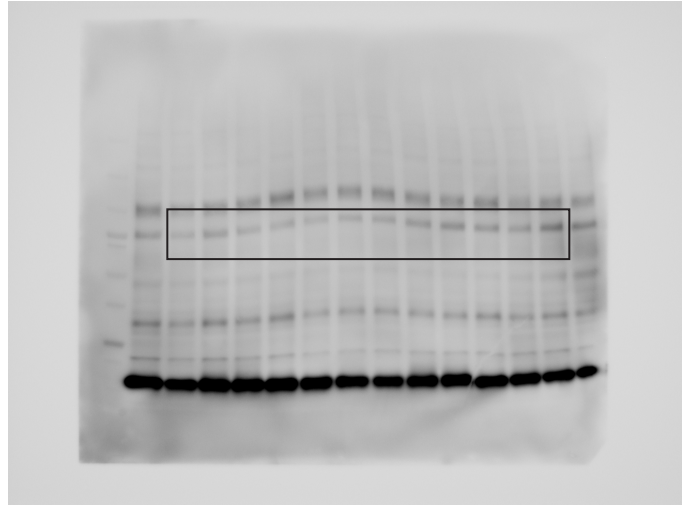
The concentration of A β_{40} (a, c) and A β_{42} (b, d) in the brain homogenates was measured by ELISA. Samples were obtained at 5 weeks (a, b) and at 15 weeks (c, d) after the BCAS operation. Statistical significance was determined by using a Student's *t*-test. $n = 8$ (5 weeks) and 6 (15 weeks).

Supplemental Figure S2A

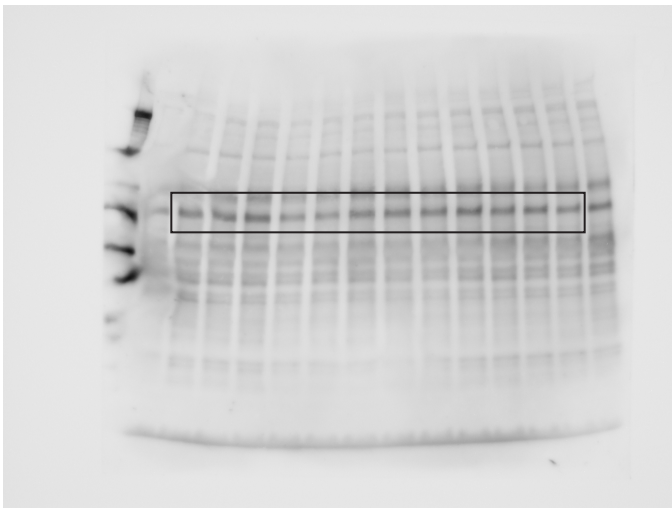
APP



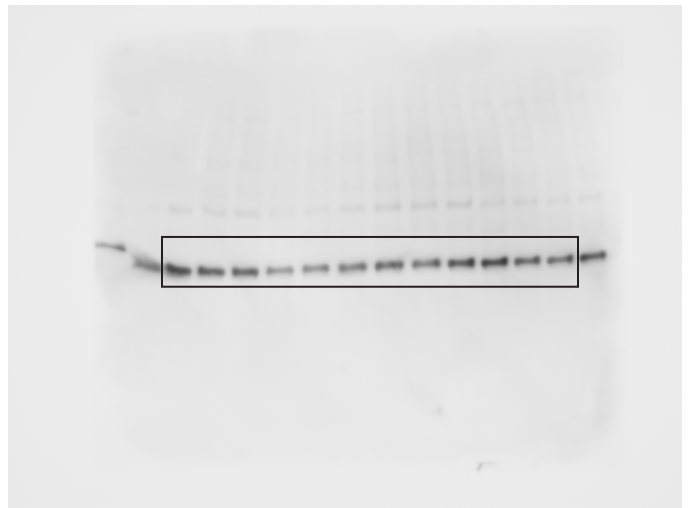
sAPP α



sAPP β

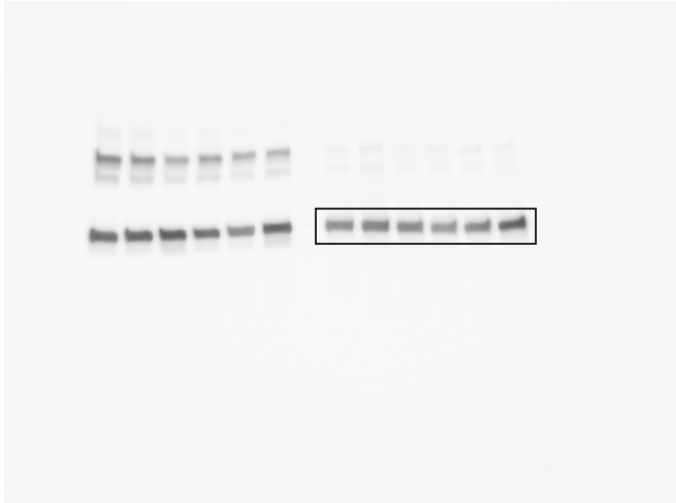


Actin

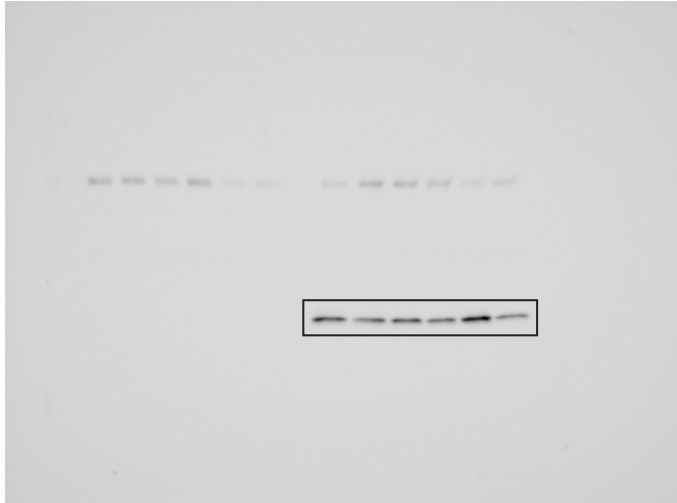


Supplemental Figure S2C

BACE1



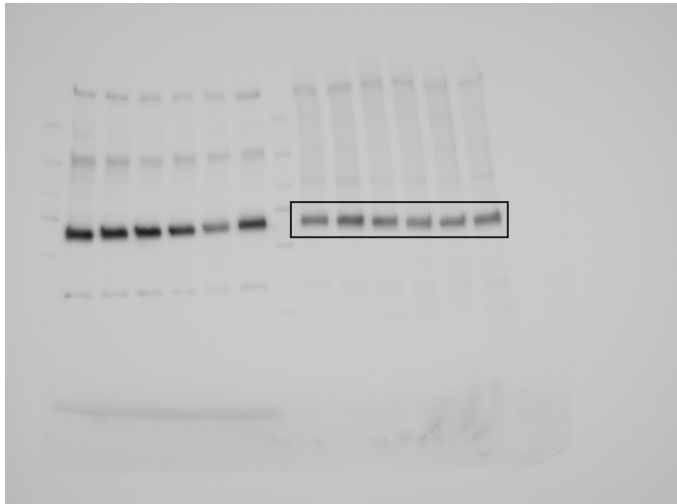
PSEN1



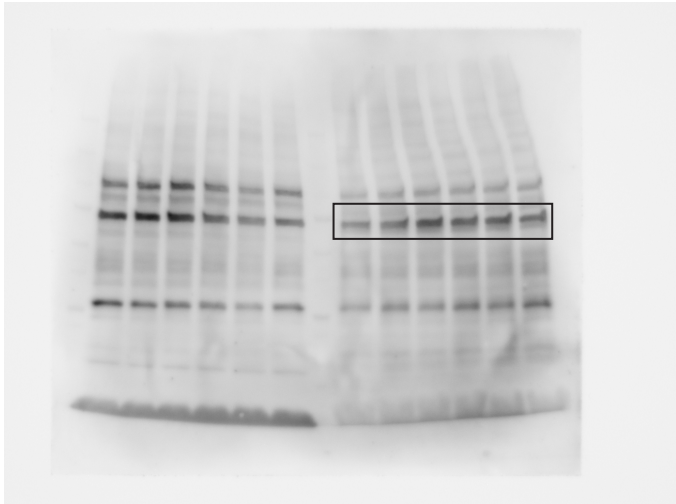
PEN2



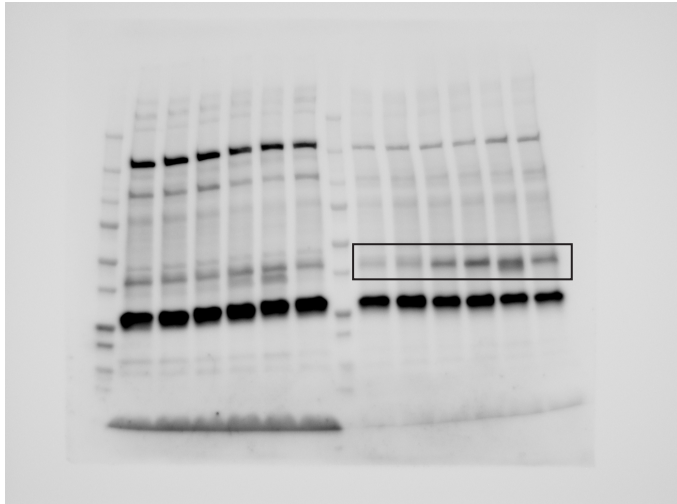
APH1α



Nicastrin

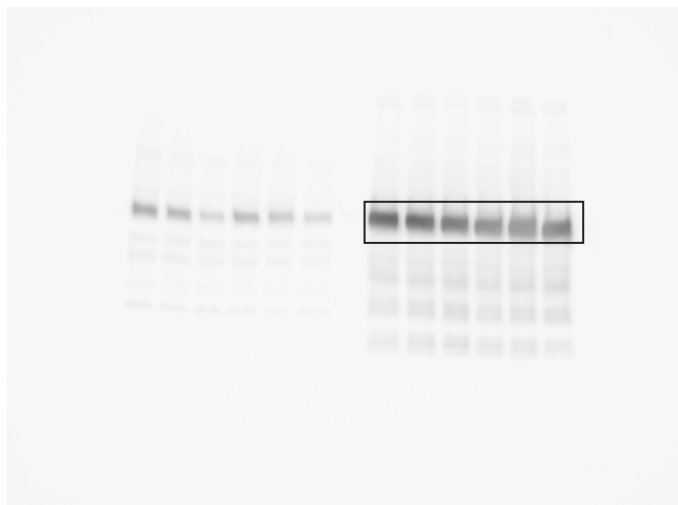


RAGE

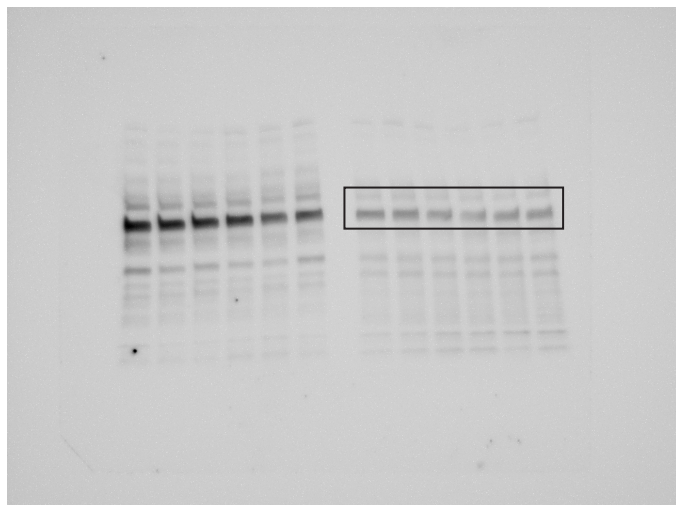


Supplemental Figure S2C

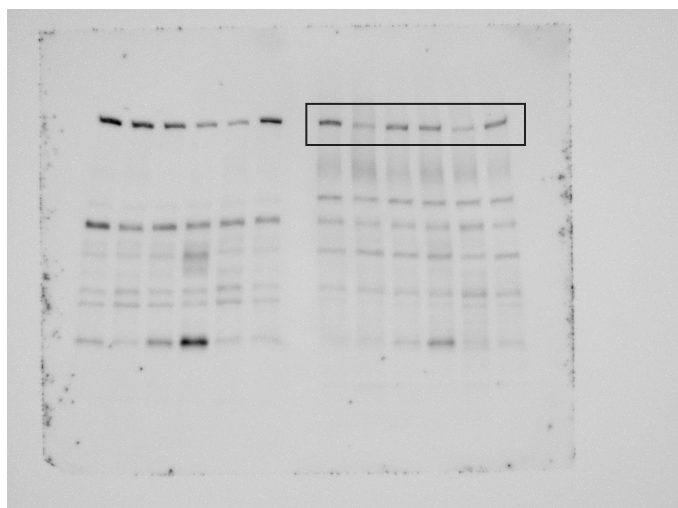
LRP1



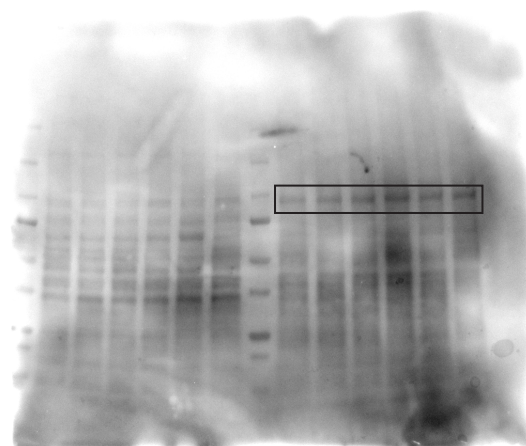
Clusterin



ABCB1



Nephrilysin



Actin

