

Supplementary Figures for

Angiotensin type 1a receptor deficiency decreases amyloid  $\beta$ -protein  
generation and ameliorates brain amyloid pathology

Junjun Liu,<sup>1</sup> Shuyu Liu,<sup>1</sup> Yukino Matsumoto,<sup>1</sup> Saki Murakami,<sup>1</sup> Yusuke Sugakawa,<sup>1</sup>  
Ayako Kami,<sup>1</sup> Chiaki Tanabe,<sup>1</sup> Tomoji Maeda,<sup>1</sup> Makoto Michikawa,<sup>2</sup> Hiroto  
Komano,<sup>1</sup> Kun Zou<sup>1</sup>

<sup>1</sup>Department of Neuroscience, School of Pharmacy, Iwate Medical University, 2-1-1  
Nishitokuta, Yahaba, Iwate 028-3694, Japan

<sup>2</sup>Department of Biochemistry, Nagoya City University Medical School, 1-Kawasumi,  
Mizuho-cho, Mizuho-ku, Nagoya 467-8601, Japan

Address correspondence to: Department of Neuroscience, School of Pharmacy, Iwate  
Medical University, Kun Zou or Hiroto Komano; Tel: 81-19-698-1820; Fax:  
81-19-698-1864. Email: [kunzou@iwate-med.ac.jp](mailto:kunzou@iwate-med.ac.jp) or [hkomano@iwate-med.ac.jp](mailto:hkomano@iwate-med.ac.jp)

Figure legends

**Supplementary Figure 1.** AT1a deficient mice showed decreased systolic and diastolic blood pressure. The body weight (a), systolic and diastolic blood pressure (b and c) of the 14-month-old *hAPP/Agtr1a*<sup>+/+</sup>, *hAPP/Agtr1a*<sup>+/-</sup> and *hAPP/Agtr1a*<sup>-/-</sup> mouse. n=8 *hAPP/Agtr1a*<sup>+/+</sup> mice, n=8 *hAPP/Agtr1a*<sup>+/-</sup> mice and n=8 *hAPP/Agtr1a*<sup>-/-</sup> mice. \**P* < 0.05, \*\*\**P* < 0.001 by one-way ANOVA followed by post hoc Bonferroni test comparing with *hAPP/Agtr1a*<sup>+/+</sup> mouse.

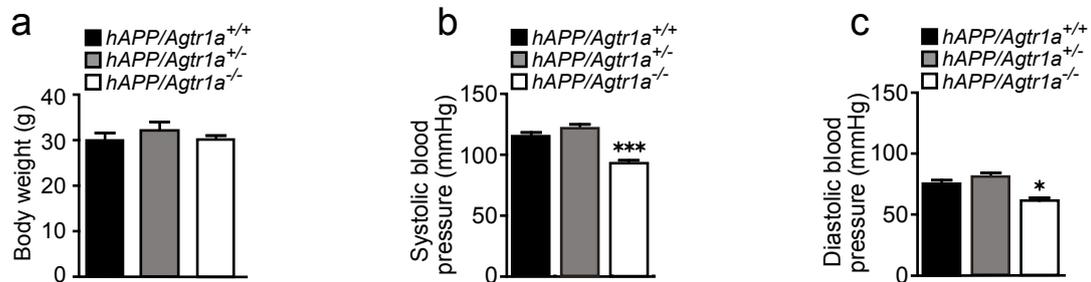
**Supplementary Figure 2.** Real-time PCR quantitative analysis of PS1, NCT, Aph-1 and Pen-2 in AT1a deficient cells. The mRNA levels comparison of the four components of  $\gamma$ -secretase complex, PS1 (a), NCT (b), Aph-1 (c) and Pen-2 (d) between *hAPP/Agtr1a*<sup>+/+</sup> and *hAPP/Agtr1a*<sup>-/-</sup> cells. Error bars show means  $\pm$  s.e.m., n=4 independent experiments, two-tailed Student's *t*-test.

**Supplementary Figure 3.** Notch cleavage did not change in AT1a deficient mouse brain and cells. The NICD levels were detected by Westernblot in the 14-month-old *hAPP/Agtr1a*<sup>+/+</sup>, *hAPP/Agtr1a*<sup>+/-</sup> and *hAPP/Agtr1a*<sup>-/-</sup> mouse brain lysate (a), and in the *hAPP/Agtr1a*<sup>+/+</sup> and *hAPP/Agtr1a*<sup>-/-</sup> cells (b). Cropped immunoblots are presented and all samples were compared under the same experimental conditions.

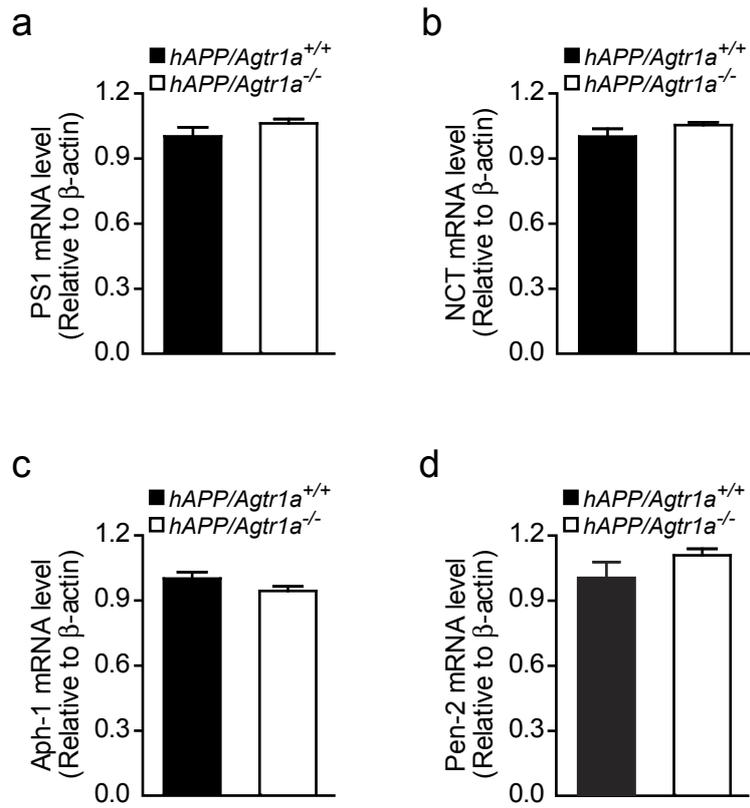
**Supplementary Figure 4.** Original immunoblot panels corresponding to Fig. 2. The dashed boxes represent the bands shown in the original figure.

**Supplementary Figure 5.** Original immunoblot panels corresponding to Fig. 3.

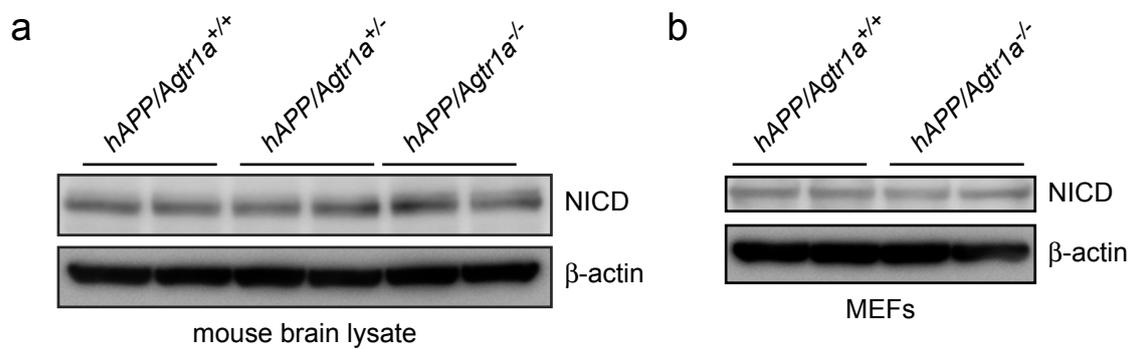
Supplementary Figure 1  
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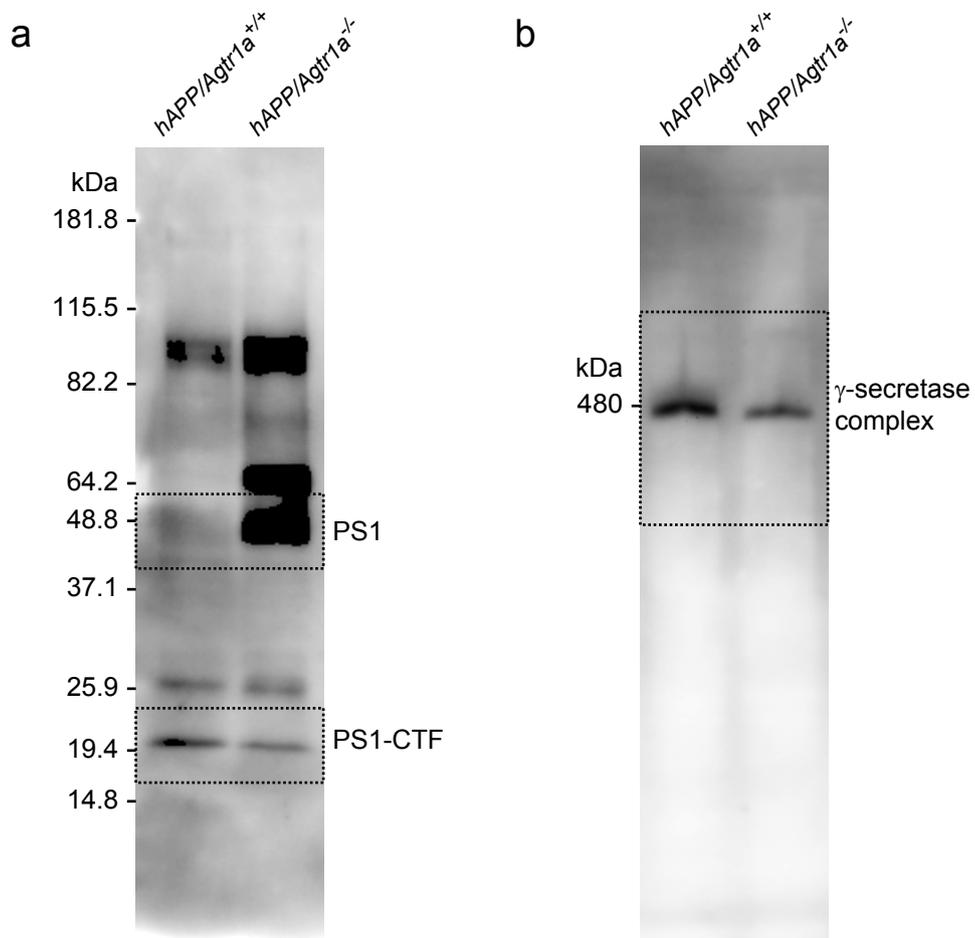
Supplementary Figure 2  
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Supplementary Figure 3  
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Supplementary Figure 4  
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Supplementary Figure 5  
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