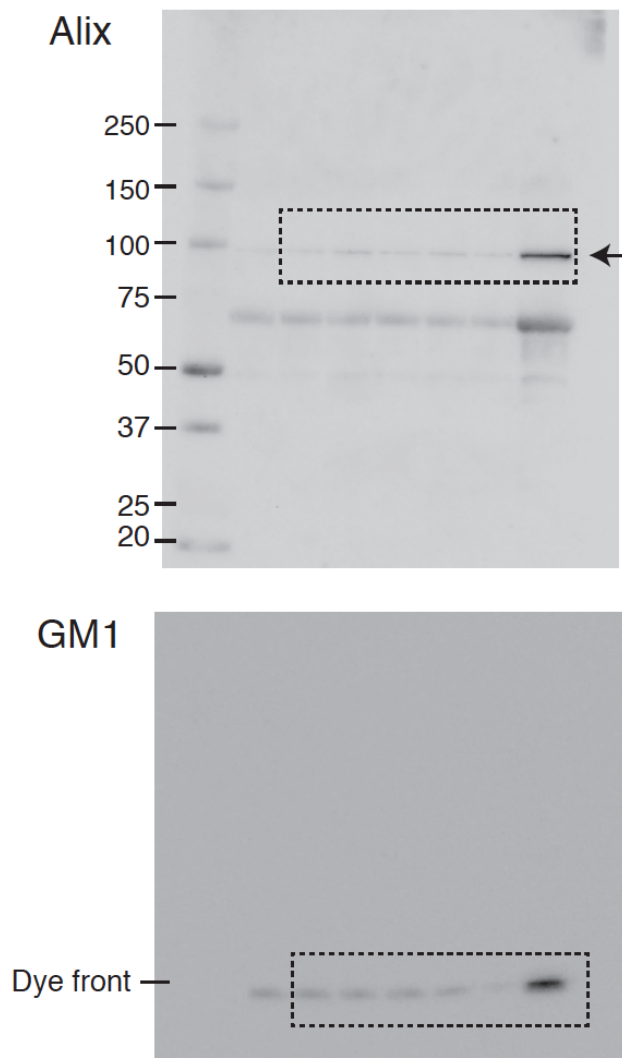


## Supplementary information

### Plant sphingolipids promote extracellular vesicle release and alleviate amyloid- $\beta$ pathologies in a mouse model of Alzheimer's disease

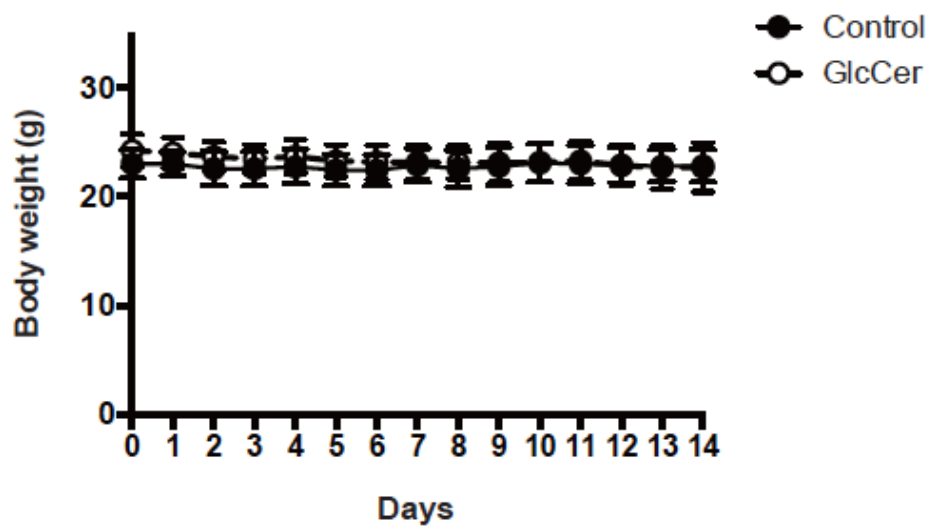
Kohei Yuyama, Kaori Takahashi, Seigo Usuki, Daisuke Mikami, Hui Sun, Hisatoshi Hanamatsu, Junichi Furukawa, Katsuyuki Mukai, Yasuyuki Igarashi

#### Supplementary Figures and Table:



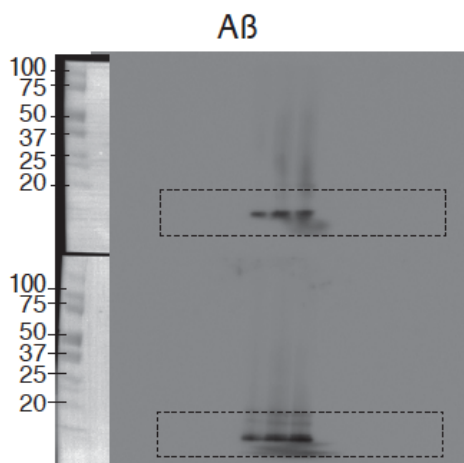
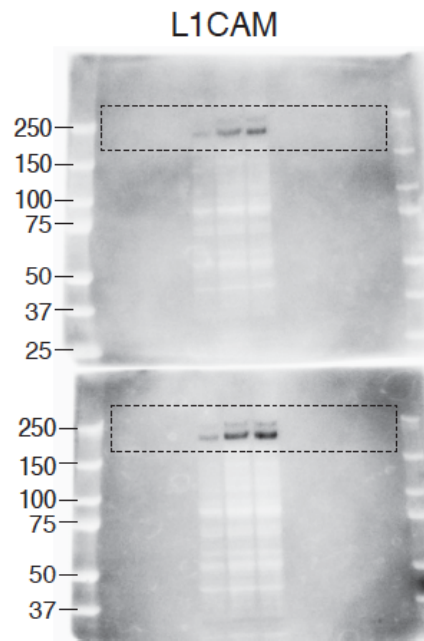
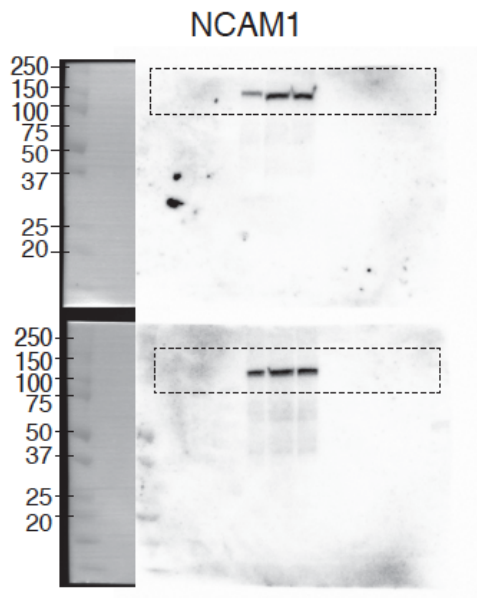
#### Supplementary Fig.S1

Full-length blots for Fig. 1d.



**Supplementary Fig.S2**

Body weights during plant GlcCer administration.



**Supplementary Fig.S3**

Full-length blots for Fig. 5e.

### Modified SHRPA results

SHIRPA			Control	GlcCer
<i>In the Viewing Jar</i>	Coat color	Abnormal	0/14	0/14
	White belly	No	14/14	14/14
	Hair length	Abnormal	0/14	0/14
	Tremor	Present	0/14	0/14
	Body position	Flat	14/14	14/14
	Whiskers	Abnormal	0/14	0/14
	Palpebral closure	Open	14/14	14/14
	Lacrimation	Present	0/14	0/14
<i>In the Arena</i>	Transfer arousal	< 1 sec	4/14	3/14
		1-5 sec	10/14	11/14
		>5 sec	0/14	0/14
	*Locomotor activity	sec	16.49	15.96
	Gait	Fluid movement	14/14	14/14
	Grasp reflex	Present	14/14	14/14
	Biting	Present	3/14	2/14
	Tail elevation	Elevated	10/14	9/14
		Extended	3/14	3/14
	Touch escape	Drag	1/14	2/14
Mild		2/14	1/14	
	Moderate	12/14	13/14	
<i>Above the Arena</i>	Skin color	Pink	14/14	14/14
	Trunk curl	Present	0/14	0/14
	Limb grasping	Present	0/14	0/14
	Pinna reflex	Present	14/14	14/14
	Cornial reflex	Present	14/14	14/14
	Vocalization	Present	3/14	2/14

\*Unpaired t-test:  $p=0.8036$  (Control  $n=14$ , GlcCer  $n=14$ )

### Supplementary Table S1