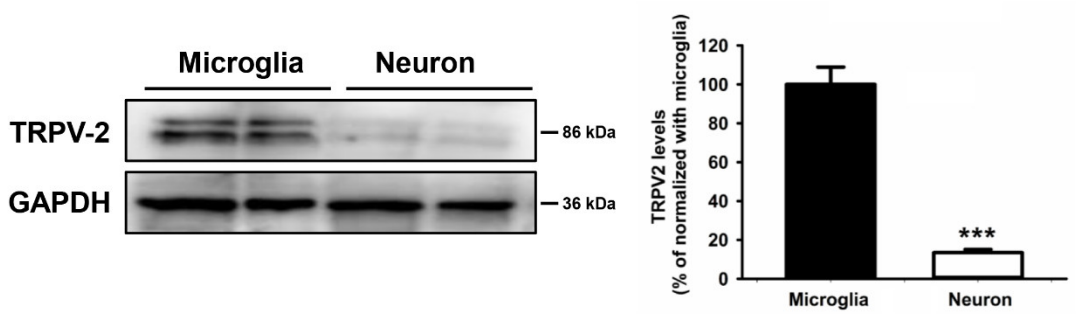

Figure S1. TRPV2 expression levels were different in neuron and microglia. (B) The protein expression levels of TRPV2 were measured on neuronal and microglial extracts. The data are represented as the mean ± SEM (n = 3/group). *** $p < 0.001$ is compared to the neuron by the Student's t-test.

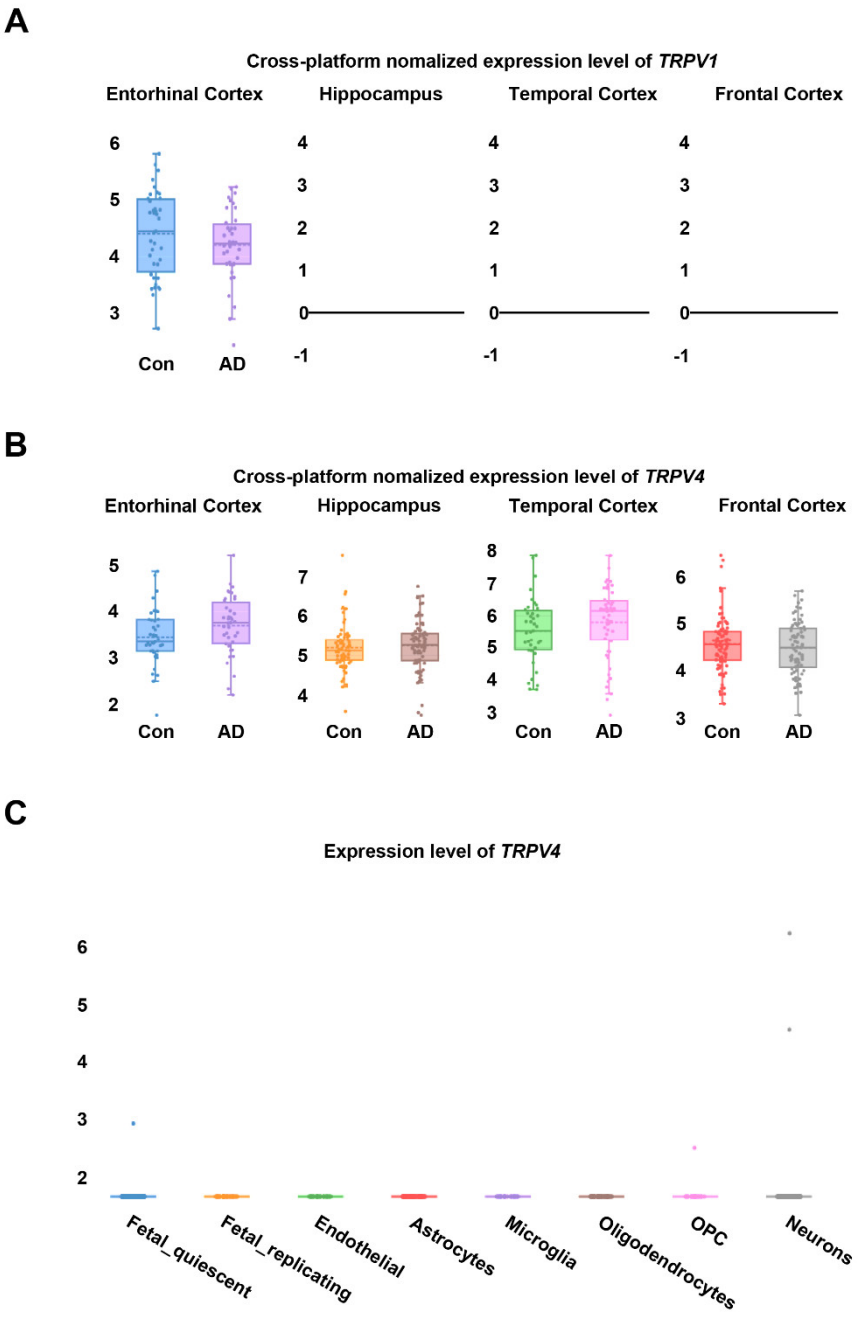

Figure S2. TRPV1 and TRPV4 expression levels in AD patients. (A) Transcriptional expression level of TRPV1 in entorhinal, temporal and frontal cortex and hippocampus tissues of patients with AD in the cross-platform database. (B) Transcriptional expression level of TRPV4 in entorhinal, temporal and frontal cortex and hippocampus tissues of patients with AD in the cross-platform database. (C) Transcriptional expression level of TRPV4 in different cells (endothelial, microglia, oligodendrocytes and neurons) were different in the GSE67835 database.

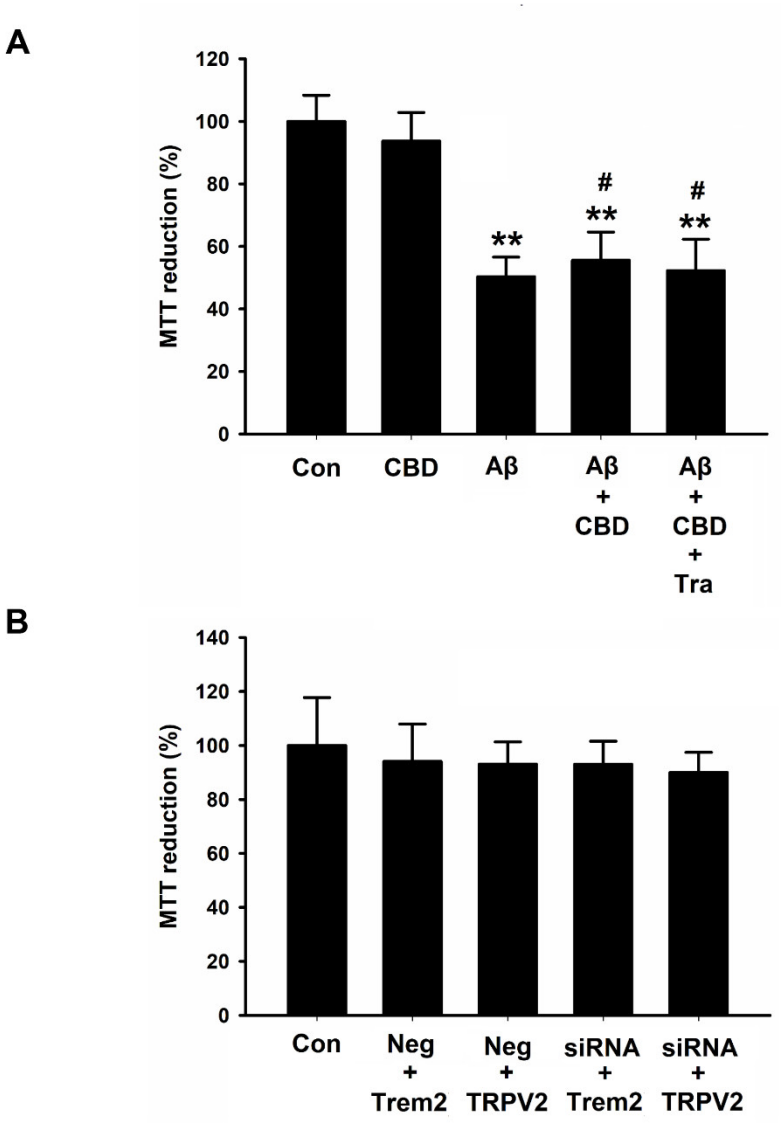

Figure S3. Microglial survival was different feature after siRNA and inhibitor. (A) BV2 microglia were pre-added with tra (tranilast 75 μM), and treated with or without CBD after 24 hours (n = 12), (B) BV2 microglia were treated with negative siRNA, TRPV2 and Trem2 siRNA (n = 6), the cell viability was determined with the MTT reduction assay and was expressed as a percentage of the untreated cells. ** $p < 0.01$ are compared to the control by the Tukey's test; # $p < 0.05$ is compared to Aβ group by the Tukey's test.

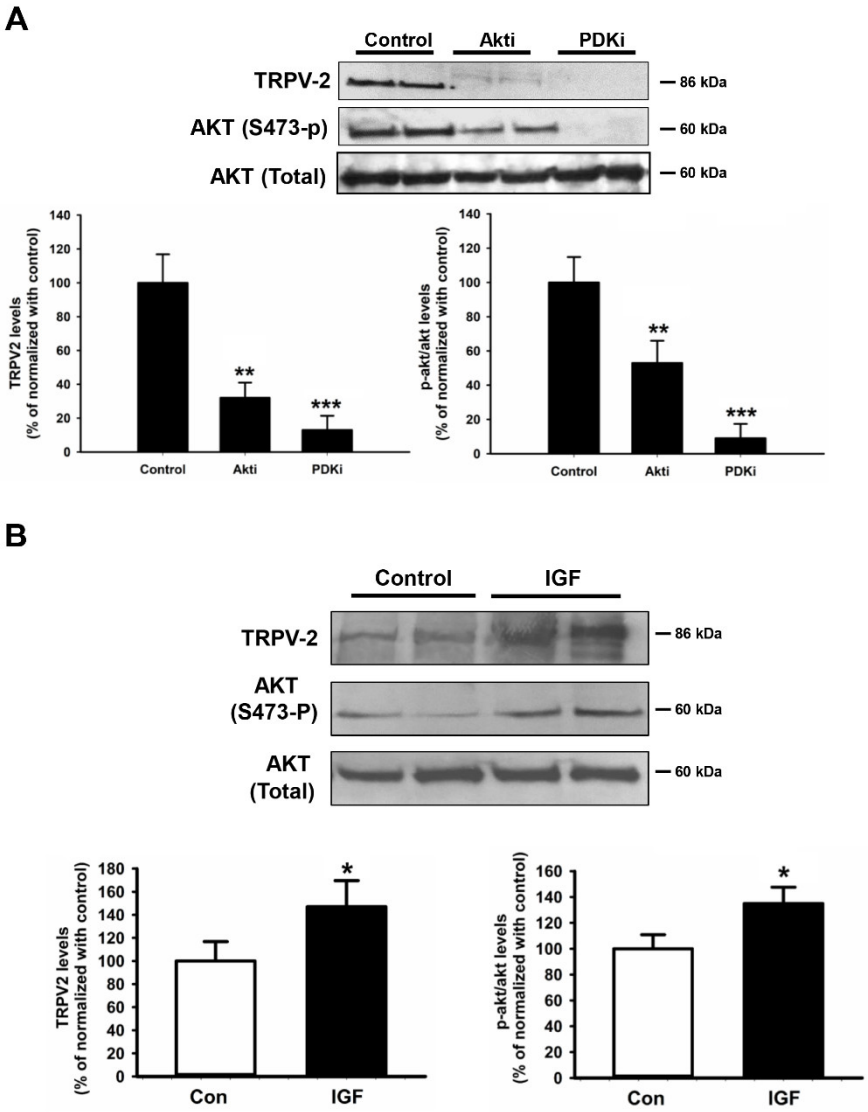

Figure S4. TRPV2 protein expression was changed following PI3K/Akt signaling pathway. (A) BV2 microglia were treated with akti (Akt inhibitor 10 μM), PDK1i (PDK1 inhibitor: GSK2334470 1μM) after 24 hours. (B) N2a cells were treated with IGF-1 (50 ng/ml) after 4 hours, the TRPV2 protein levels and the phosphorylation of Akt were determined by western blot. Band densitometry quantification of TRPV2 and the phosphorylation of Akt were normalized to total Akt levels. The data are represented as the mean ± SEM (n=4). * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$ are compared to control by the Tukey's test.

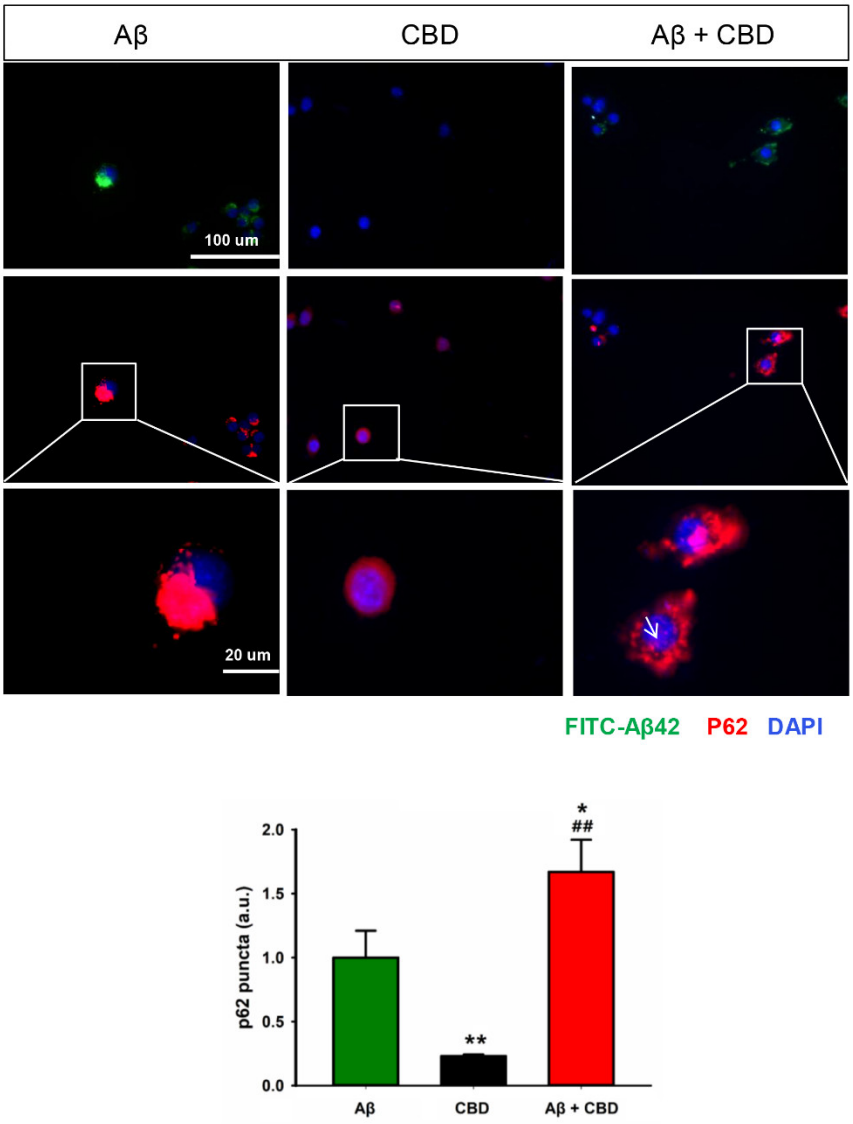

Figure S5. CBD induced p62 expression in microglial cells. After the primary microglia were treated with Aβ for 24 hours, representative immunofluorescence staining of the p62 in each group were observed in the sections (arrows in the images denote the p62). The intensity of the signals was quantified and expressed as a percentage of the controls using ImageJ software (n = 30 to 46 per group). a.u., arbitrary units. The data are represented as the mean ± SEM. * $p < 0.05$, and ** $p < 0.01$ are compared to the controls by the Tukey's test.

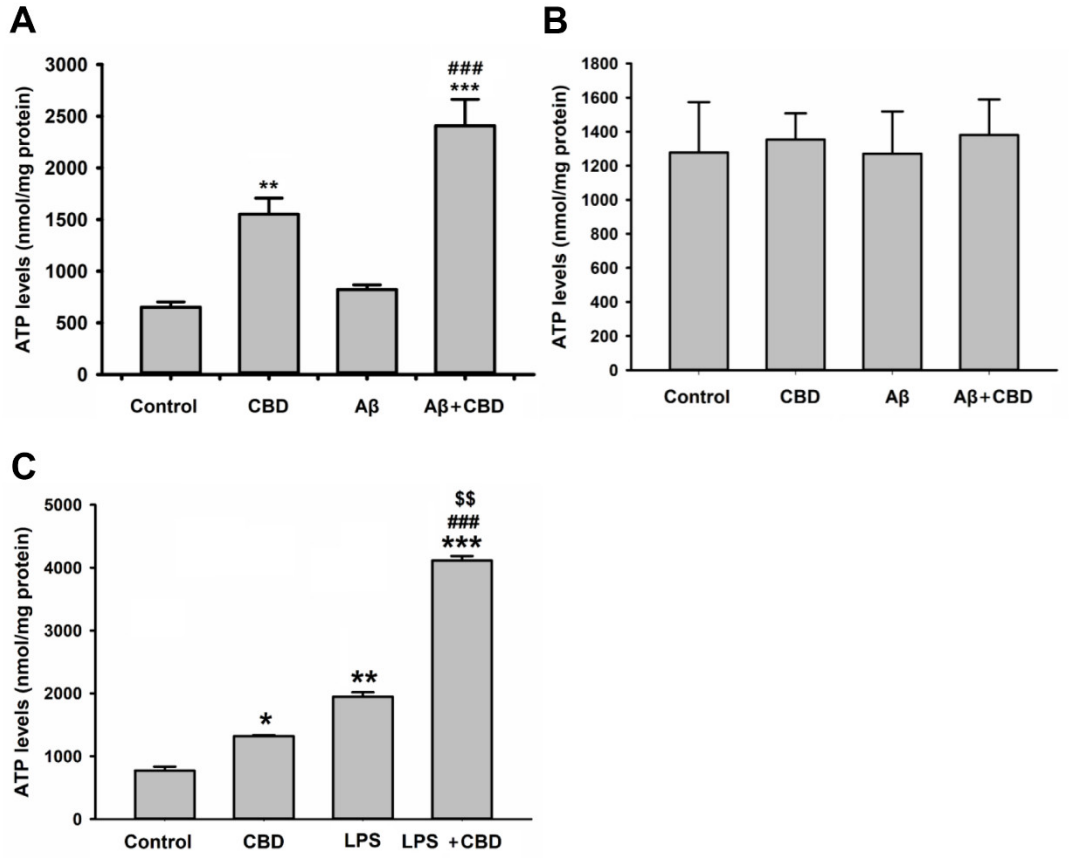

Figure S6. Total ATP production of BV2 and N2a cells under different conditions. (A) N2a cells were cultured at 1 × 10^5 on poly-D-lysine in 6-well plates with MEM medium, and after 24 hours, half of medium was removed. BV2 cells were plated at 1 × 10^5 with DMEM complete medium, and after 24 hours, the co-cultured cells were treated with 1 μg/ml FITC-Aβ42, CBD (10 μM) was added to medium for 24 hours. (B) Total ATP production of N2a cells under different conditions as indicated. Aβ and/or CBD were added to the cells for 24 hours before measurement. (C) Total ATP production of BV2 cells under different conditions as indicated. LPS (1 μg/ml) and/or CBD were added to the cells for 24 hours before measurement. The data are represented as the mean ± SEM (n=4). * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$ are compared to the controls by the Tukey's test; ### $p < 0.001$ is between CBD and CBD + Aβ by the Student's t-test; $$ $p < 0.01$ is between Aβ and CBD + Aβ by the Student's t-test.

Table S1. Cannabidiol enhances microglial beta-amyloid peptides phagocytosis and clearance via vanilloid family type 2 channel activation.

Figure	Statistical analysis	Number of observations	T or F values	VS	P values
Fig. 1A	One-way ANOVA with Tukey's *post hoc* test	4	F(5, 32) = 7.475	E15 vs. E17 E15 vs. P1 E15 vs. P3 E15 vs. M4 E15 vs. M6	$P = 0.988$ $P = 0.206$ $P = 0.024$ $P = 0.012$ $P = 0.001$
Fig. 1B	Unpaired, two-tailed student's *t* test analysis	4	t(6) = 2.916 t(6) = 4.432	CX: WT vs. APP HP: WT vs. APP	$P = 0.027$ $P = 0.004$
Fig. 1C	Date from AlzData web server (www.alzdata.org)	19		EC: Con vs. AD HP: Con vs. AD TC: Con vs. AD FC: Con vs. AD	$P = 0.035$ $P = 0.181$ $P = 0.22$ $P = 0.067$
Fig. 1D	Date from AlzData web server (www.alzdata.org)	19		EC: Con vs. AD	$P = 0.055$
Fig. 1E	Date from AlzData web server (www.alzdata.org)	19		HP: Con vs. AD	$P = 0.017$
Fig. 2B	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 35.622	Aβ vs. CBD Aβ vs. CBD + Aβ CBD vs. CBD + Aβ	$P = 0.004$ $P = 0.011$ $P < 0.001$
Fig. 2C	Unpaired, two-tailed student's *t* test analysis	3	t(10) = -1.812 t(10) = -2.721 t(10) = -2.828 t(10) = -3.003 t(10) = -3.841	1h: Aβ vs. Aβ + CBD 3h: Aβ vs. Aβ + CBD 6h: Aβ vs. Aβ + CBD 16h: Aβ vs. Aβ + CBD 24h: Aβ vs. Aβ + CBD	$P = 0.11$ $P = 0.022$ $P = 0.018$ $P = 0.013$ $P = 0.003$
Fig.	Unpaired,	4	t(6) = 5.365	Sup: Aβ vs. Aβ +	$P = 0.002$

2E	two-tailed student's *t* test analysis		t(6) = -2.87	CBD Lys: Aβ vs. Aβ + CBD	*P* = 0.028
Fig. 3A	One-way ANOVA with Tukey's *post hoc* test	6	F(4, 25) = 23.792	Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + 2-PAB Con vs. Aβ + CAP Aβ vs. Aβ + CBD Aβ vs. Aβ + 2-PAB Aβ vs. Aβ + CAP	*P* = 0.001 *P* < 0.001 *P* < 0.001 *P* = 0.003 *P* = 0.002 *P* = 0.013 *P* = 0.0045
Fig. 3B	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 5.118	WT + Aβ vs. Aβ + CBD siRNA + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA + Aβ WT + Aβ + CBD vs. siRNA + Aβ + CBD	*P* = 0.045 *P* = 0.981 *P* = 0.011 *P* = 0.026
Fig. 3C	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 26.223	Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD + Tra Aβ vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + Tra	*P* = 0.002 *P* < 0.001 *P* = 0.003 *P* = 0.004 *P* = 0.001
Fig. 3D	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 16.863	Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD + Akti Aβ vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + Akti	*P* = 0.002 *P* < 0.001 *P* = 0.004 *P* = 0.004 *P* = 0.01
Fig. 3E	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 38.978	Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD + PDK1i Aβ vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + PDK1i	*P* = 0.002 *P* < 0.001 *P* = 0.001 *P* = 0.004 *P* < 0.001
Fig. 3F	One-way ANOVA with Tukey's	6	F(3, 20) = 25.018	Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD + PERKi	*P* = 0.002 *P* < 0.001 *P* = 0.003

	post hoc test			Aβ vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + PERKi	*P* = 0.004 *P* = 0.002
Fig. 4 TRPV 2	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 12.335	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.013 *P* = 0.991 *P* = 0.002 *P* = 0.001
Fig. 4 Trem2	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 67.094	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.008 *P* = 0.005 *P* < 0.001 *P* = 0.001
Fig. 4 Iba1	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 56.861	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 1.000 *P* < 0.001 *P* < 0.001 *P* = 0.002
Fig. 4 IL-1β	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 8.753	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.773 *P* = 0.001 *P* = 0.04 *P* = 0.004
Fig. 4 IL-6	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 16.541	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.036 *P* = 0.321 *P* = 0.005 *P* = 0.012
Fig. 4 IL-4	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 57.448	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.124 *P* < 0.001 *P* < 0.001 *P* = 0.02
Fig. 4 GPR34	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 64.956	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.052 *P* < 0.001 *P* < 0.001 *P* = 0.002
Fig. 4 CR3	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 2.018	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.332 *P* = 0.267 *P* = 0.04 *P* = 0.872

Fig.4 P2Y6	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 5.618	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.032 *P* = 0.042 *P* = 0.014 *P* = 0.027
Fig. 5 TRPV 2	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 56.861	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA + CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* < 0.001 *P* = 0.001 *P* = 0.435 *P* < 0.001 *P* = 0.042
Fig. 5 Trem2	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 53.818	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* < 0.001 *P* = 0.001 *P* = 0.014 *P* < 0.001 *P* = 0.018
Fig. 5 P2Y6	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 12.986	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.038 *P* = 0.003 *P* = 0.011 *P* = 0.826 *P* = 0.014
Fig. 5 Iba1	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 193.709	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs.	*P* < 0.001 *P* < 0.001 *P* < 0.001 *P* = 0.013 *P* = 0.008

				siRNA + Aβ + CBD	
Fig. 5 IL-4	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 12.221	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.028 *P* = 0.013 *P* = 0.031 *P* = 0.467 *P* = 0.039
Fig. 5 GPR34	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 45.404	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA + CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* < 0.001 *P* = 0.008 *P* = 0.411 *P* < 0.001 *P* = 0.014
Fig.5 CR3	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 0.721	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.032 *P* = 0.976 *P* = 1.00 *P* = 0.026 *P* = 1.00
Fig. 6 TRPV2	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 49.106	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.034 *P* = 0.041 *P* < 0.001 *P* < 0.001 *P* < 0.001
Fig. 6 Trem2	One-way ANOVA with	4	F(3, 8) = 33.831	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA	*P* = 0.001 *P* = 0.024

	Tukey's *post hoc* test			+ Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	 *P* = 0.674 *P* = 0.004 *P* = 0.005
Fig. 6 P2Y6	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 51.478	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* < 0.001 *P* < 0.001 *P* = 0.025 *P* = 0.092
Fig. 6 Iba1	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 27.53	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA + CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.002 *P* = 0.022 *P* = 0.18 *P* < 0.001 *P* = 0.001
Fig. 6 IL-4	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 5.118	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.554 *P* = 0.023 *P* = 0.004 *P* = 0.007 *P* < 0.001
Fig. 6 GPR34	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 55.54	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs.	*P* < 0.001 *P* = 0.183 *P* = 0.732 *P* < 0.001

				siRNA+ CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	 *P* = 0.043
Fig. 6 CR3	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 8) = 3.754	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA + CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	*P* = 0.814 *P* = 0.025 *P* = 0.045 *P* = 0.309 *P* = 0.331
Fig. 7A TRPV 2	One-way ANOVA with Tukey's *post hoc* test	4	F(5, 18) = 37.405	0h vs. 1h 0h vs. 3h 0h vs. 6h 0h vs. 16h 0h vs. 24h	*P* = 0.033 *P* = 0.026 *P* = 0.004 *P* < 0.001 *P* = 0.007
Fig. 7A pAkt/ Akt	One-way ANOVA with Tukey's *post hoc* test	4	F(5, 18) = 26.784	0h vs. 1h 0h vs. 3h 0h vs. 6h 0h vs. 16h 0h vs. 24h	*P* = 0.016 *P* = 1.00 *P* = 0.002 *P* < 0.001 *P* = 0.001
Fig. 7A LC3-B/LC3 -A	One-way ANOVA with Tukey's *post hoc* test	4	F(5, 18) = 18.745	0h vs. 1h 0h vs. 3h 0h vs. 6h 0h vs. 16h 0h vs. 24h	*P* = 0.038 *P* = 0.008 *P* = 0.034 *P* = 0.004 *P* < 0.001
Fig. 7A P62	One-way ANOVA with Tukey's *post hoc* test	4	F(5, 18) = 12.929	0h vs. 1h 0h vs. 3h 0h vs. 6h 0h vs. 16h 0h vs. 24h	*P* = 0.969 *P* = 0.01 *P* = 0.887 *P* = 0.031 *P* = 0.01
Fig. 7A Beclin e-1	One-way ANOVA with Tukey's *post hoc* test	4	F(5, 18) = 17.626	0h vs. 1h 0h vs. 3h 0h vs. 6h 0h vs. 16h 0h vs. 24h	*P* = 0.036 *P* = 0.028 *P* = 0.006 *P* = 0.029 *P* = 0.031
Fig.	One-way	4	F(2, 9) = 7.59	Con vs. Aβ + CBD	*P* = 0.028

7B TRPV 2	ANOVA with Tukey's *post hoc* test			Aβ + CBD vs. Aβ + CBD + Tra	$P = 0.047$
Fig. 7B pAkt/ Akt	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 11.461	Con vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + Tra	$P = 0.035$ $P = 0.011$
Fig. 7B LC3B/ LC3A	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 5.471	Con vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + Tra	$P = 0.018$ $P = 0.069$
Fig. 7B P62	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 12.617	Con vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + Tra	$P = 0.024$ $P = 0.018$
Fig. 7B Beclin e-1	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 14.512	Con vs. Aβ + CBD Aβ + CBD vs. Aβ + CBD + Tra	$P = 0.021$ $P = 0.012$
Fig.8 A	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 1612.792	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD CBD vs. Aβ + CBD Aβ vs. Aβ + CBD	$P = 0.001$ $P < 0.001$ $P < 0.001$ $P < 0.001$ $P < 0.001$
Fig.8 B	One-way ANOVA with Tukey's *post hoc* test	6	F(3, 20) = 42.464	WT + Aβ vs. WT + Aβ + CBD WT + Aβ vs. siRNA + Aβ WT + Aβ vs. siRNA + Aβ + CBD WT + Aβ + CBD vs. siRNA + CBD + Aβ siRNA + Aβ vs. siRNA + Aβ + CBD	$P < 0.001$ $P = 0.033$ $P = 0.004$ $P = 0.006$ $P = 0.003$
Fig.8 D	One-way ANOVA with Tukey's	4	F(3, 8) = 128.122	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD CBD vs. Aβ + CBD	$P = 0.002$ $P < 0.001$ $P < 0.001$ $P = 0.01$

	post hoc test			Aβ vs. Aβ + CBD	*P* = 0.031
Fig.8E	One-way ANOVA with Tukey's *post hoc* test	12	F(4, 45) = 45.25	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD +Rapa Aβ vs. Aβ + CBD Aβ vs. Aβ + CBD +Rapa CBD vs. Aβ + CBD CBD vs. Aβ + CBD +Rapa Aβ + CBD vs. Aβ + CBD +Rapa	*P* = 0.01 *P* = 0.002 *P* = 0.055 *P* < 0.001 *P* < 0.001 *P* < 0.001 *P* = 0.963 *P* = 0.002 *P* < 0.001
Fig.8F	One-way ANOVA with Tukey's *post hoc* test	12	F(4, 55) = 4.503	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD +Rapa Aβ vs. Aβ + CBD Aβ vs. Aβ + CBD +Rapa CBD vs. Aβ + CBD CBD vs. Aβ + CBD +Rapa Aβ + CBD vs. Aβ + CBD +Rapa	*P* = 0.564 *P* = 0.991 *P* = 0.029 *P* = 0.012 *P* = 0.029 *P* = 0.012 *P* = 0.045 *P* = 0.036 *P* = 0.545
Supplement Fig. 1	Unpaired, two-tailed student's *t* test analysis	3	t(6) = 11.564	Microglia vs. Neuron	*P* < 0.001
Supplement Fig. 2A	Date from AlzData web server (www.alzdata.org)	19		Con vs. AD	*P* = 0.312
Supplement Fig. 2B	Date from AlzData web server (www.alzdata.org)	19		EC: Con vs. AD HP: Con vs. AD TC: Con vs. AD FC: Con vs. AD	*P* = 0.058 *P* = 0.607 *P* = 0.218 *P* = 0.347
Suppl	One-way	12	F(4, 56) =	Con vs. CBD	*P* = 0.993

ement Fig. 3A	ANOVA with Tukey's *post hoc* test		10.532	Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD + Tra CBD vs. Aβ + CBD CBD vs. Aβ + CBD + Tra Aβ + CBD vs. Aβ + CBD + Tra	*P* = 0.001 *P* = 0.002 *P* = 0.002 *P* = 0.039 *P* = 0.022 *P* = 0.497
Supplement Fig. 3B	One-way ANOVA with Tukey's *post hoc* test	12	F(4, 52) = 10.532	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Con vs. Aβ + CBD + Tra CBD vs. Aβ + CBD CBD vs. Aβ + CBD + Tra Aβ + CBD vs. Aβ + CBD + Tra	*P* = 0.993 *P* = 0.001 *P* = 0.002 *P* = 0.002 *P* = 0.039 *P* = 0.022 *P* = 0.497
Supplement Fig. 3B	One-way ANOVA with Tukey's *post hoc* test	6	F(4, 24) = 0.628	Con vs. Neg + Trem2 Con vs. Neg + TRPV2 Con vs. siRNA + Trem2 Con vs. siRNA + TRPV2	*P* = 1.00 *P* = 0.999 *P* = 0.968 *P* = 0.805
Supplement Fig. 4A	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 52.467 F(2, 9) = 38.195	TRPV2: Con vs. Akti Con vs. PDK1i pAkt: Con vs. Akti Con vs. PDK1i	*P* = 0.001 *P* < 0.001 *P* = 0.003 *P* < 0.001
Supplement Fig. 4B	Unpaired, two-tailed student's *t* test analysis	3	t (6) = -3.458 t(6) = -2.911	TRPV2: Con vs. IGF pAkt: Con vs. IGF	*P* = 0.013 *P* = 0.027
Supplement Fig. 5	One-way ANOVA with Tukey's *post hoc* test	4	F(2, 9) = 32.259	Aβ vs. CBD Aβ vs. CBD + Aβ CBD vs. CBD + Aβ	*P* = 0.005 *P* = 0.013 *P* = 0.001

Supplement Fig. 6A	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 12) = 140.73	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.002 *P* = 0.089 *P* < 0.001 *P* < 0.001
Supplement Fig. 6B	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 12) = 0.181	Con vs. CBD Con vs. Aβ Con vs. Aβ + CBD Aβ vs. Aβ + CBD	*P* = 0.946 *P* = 0.907 *P* = 0.942 *P* = 0.999
Supplement Fig. 6C	One-way ANOVA with Tukey's *post hoc* test	4	F(3, 12) = 23.484	Con vs. CBD Con vs. LPS Con vs. LPS + CBD CBD vs. LPS + CBD LPS vs. LPS + CBD	*P* = 0.037 *P* = 0.009 *P* < 0.001 *P* < 0.001 *P* = 0.006