

ARTICLE

## Se-Methylselenocysteine Ameliorates Mitochondrial Function by Targeting both Mitophagy and Autophagy in the Model of Alzheimer's Mice

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### Supplementary

**Table S1 Antibody information**

Antibody	Application	Source	NO.
AKT	WB	Abcam	ab179463
p-AKT	WB	Abcam	ab81283
mTFA	WB	SantaCruz	sc-23588
NRF1	WB	SantaCruz	sc-33771
NRF2	WB	SantaCruz	sc-365949
PDHE $\alpha$	WB	Abcam	ab168379
COX IV	WB	Abcam	ab16056
VDAC1	WB, IF	proteintech	66345-1-Ig
ND1	WB	SantaCruz	sc-20493
Mfn2	WB	Abcam	ab124773
DRP1	WB	Abcam	ab184247
Fis1	WB	Abcam	ab229969
Parkin	WB	SantaCruz	sc-32282
PINK1	WB	Abcam	ab23707
TOMM20	WB	Abcam	ab283317
GAPDH-HRP	WB	Abways	ab2000
Ras	WB	Abcam	ab52939
Raf	WB	Abcam	ab33899
MEK1/2	WB	CST	8727T
p-MEK1/2	WB	CST	9154T
ERK1/2	WB	Abcam	ab17942
p-ERK1/2	WB	Abcam	ab214362
mTOR	WB	CST	2972S
p-mTOR	WB	CST	2971S
P70s6K	WB	CST	9202S
p-P70s6K	WB	CST	9205S
LC3	WB, IF	Abcam	ab51520
LAMP	IF	Abcam	ab24170
Beclin-1	WB	CST	3495S
AMPK $\alpha$	WB	CST	2532S
p-AMPK $\alpha$	WB	CST	2535S
SQSTM1/P62	WB	CST	5114S
CatD	WB	CST	2284S
BNIP3	WB	Abcam	ab109362
NIX	WB	SantaCruz	ab155010

PI3K	WB	Abcam	ab86714
$\beta$ -actin	WB	proteintech	66009-1-Ig

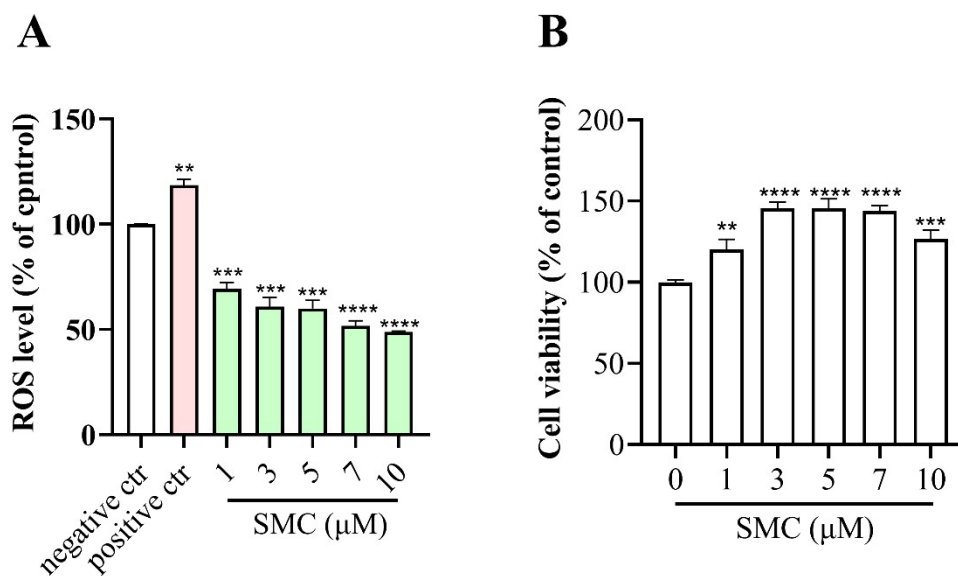


Figure S1 The ROS level (A) and the cell viability (B) of N2a-SW cells with SMC treatment. \*\*\* $p < 0.001$ ,  $n > 3$ .

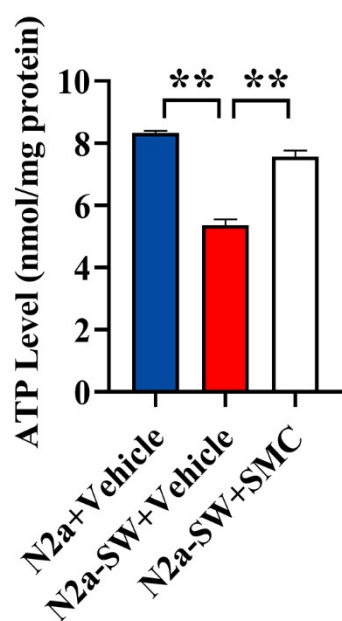
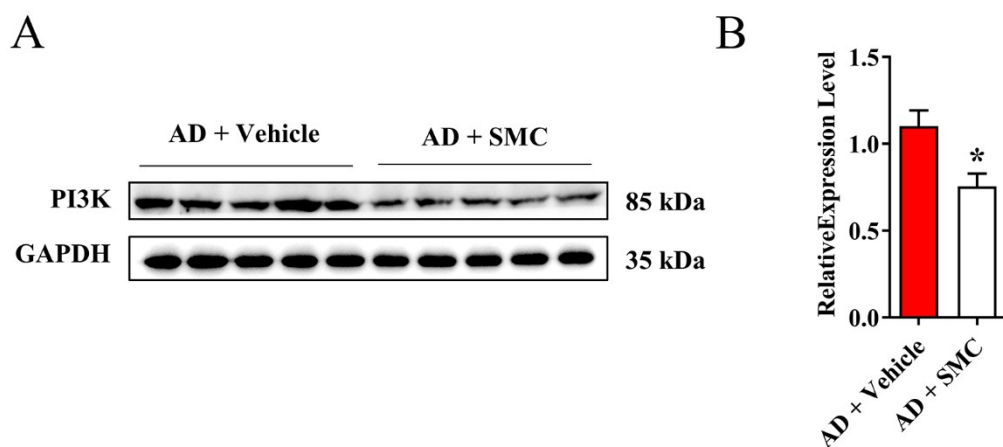
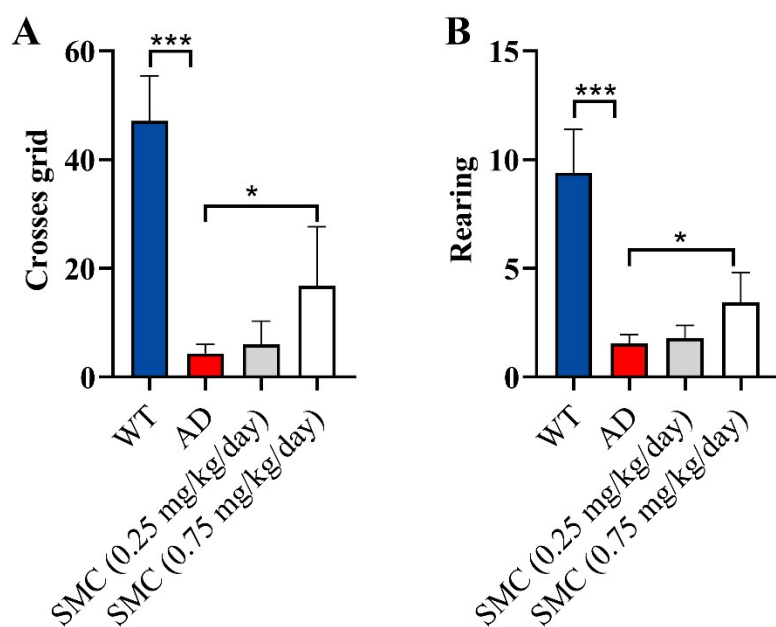


Figure S2 ATP level test in N2a-SW cell with SMC treatment for 24 h. \*\* $p < 0.01$ ,  $n > 3$ .



**Figure S3** Representative western blots analysis of autophagy-related protein PI3K in the cortex of 12-month-old mice. (B) Quantitative analyses of the data in (A). (means  $\pm$  SEMs), \* $p$  < 0.01,  $n$  = 5 mice.



**Figure S4** Effects of SMC on the depression- and anxiety-related behavior including the number of crosses grid, frequencies of rearing of 12-month-old AD mice are assessed by the open-field test. (means  $\pm$  SEMs), \* $p$  < 0.05,  $n$  = 10.