Supporting Information

Identification of \(N\)-benzothiazolyl-2-benzenesulfonamides as novel ABCA1 expression upregulators

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1. Western blot analysis of ApoA-I
In order to exclude the effect of ApoA-I on cholesterol efflux, we did western blot assay to examine whether our compound 6i affect ApoA-I protein expression in RAW264.7 cells. As Fig. S1, compound 6i at the indicated concentration (0 (control), 2.5, 5, 10 μM) didn’t affect ApoA-I protein expression. Therefore, the promoting cholesterol efflux effect of compound 6i should be induced by increasing ABCA1 expression.

![Western blot analysis of apoA-I](image)

Fig. S1   Western blot analysis of apoA-I

2. Cell validity test
HepG2 cells (ATCC, Rockville, MD) were grown in 96-well plate and treated with compounds (100, 50, 25, 12.5, 6.25, 3.125, 1.56 µM) for 72 h. Then the cell counting kit 8 (solarbio life sciences, Beijing, China) was used to investigate the influence of compounds on cell validity following the instruction. The results (Fig. S2) showed that all the tested compounds showed low cytotoxicity (CC_{50} > 100 μM).

![Cell validity test](image)

Fig. S2   Cell validity test
3. ESI-MS, $^1$H NMR, $^{13}$C NMR for compounds 6a-6n

ESI-MS of compound 6a

$^1$H-NMR spectra of compound 6a
$^{13}$C-NMR spectra of compound 6a

ESI-MS of compound 6b
$^1$H-NMR spectra of compound 6b

$^{13}$C-NMR spectra of compound 6b
ESI-MS of compound 6c

$^1$H-NMR spectra of compound 6c
$^{13}$C-NMR spectra of compound 6c

ESI-MS of compound 6d
H-NMR spectra of compound 6d

\[\text{H-NMR spectra of compound 6d}\]

\[\text{\^{13}C-NMR spectra of compound 6d}\]
ESI-MS of compound 6e

$^1$H-NMR spectra of compound 6e
$^{13}$C-NMR spectra of compound 6e

ESI-MS of compound 6f
$^{1}$H-NMR spectra of compound 6f

$^{13}$C-NMR spectra of compound 6f
ESI-MS of compound 6g

\[^1\text{H}-\text{NMR spectra of compound 6g}\]
$^{13}$C-NMR spectra of compound 6g

ESI-MS of compound 6h
$^1$H-NMR spectra of compound 6h

$^{13}$C-NMR spectra of compound 6h
ESI-MS of compound 6i

^1^H-NMR spectra of compound 6i
$^{13}$C-NMR spectra of compound 6i
ESI-MS of compound 6j

$^1$H-NMR spectra of compound 6j
$^{13}$C-NMR spectra of compound 6j

ESI-MS of compound 6k
$^{1}H$-NMR spectra of compound 6k

$^{13}C$-NMR spectra of compound 6k
ESI-MS of compound 6l

$^1$H-NMR spectra of compound 6l
$^{13}$C-NMR spectra of compound 6l

ESI-MS of compound 6m
$^1$H-NMR spectra of compound 6m

$^{13}$C-NMR spectra of compound 6m
ESI-MS of compound 6n

"H-NMR spectra of compound 6n

^C-NMR spectra of compound 6n
$^{13}$C-NMR spectra of compound 6n