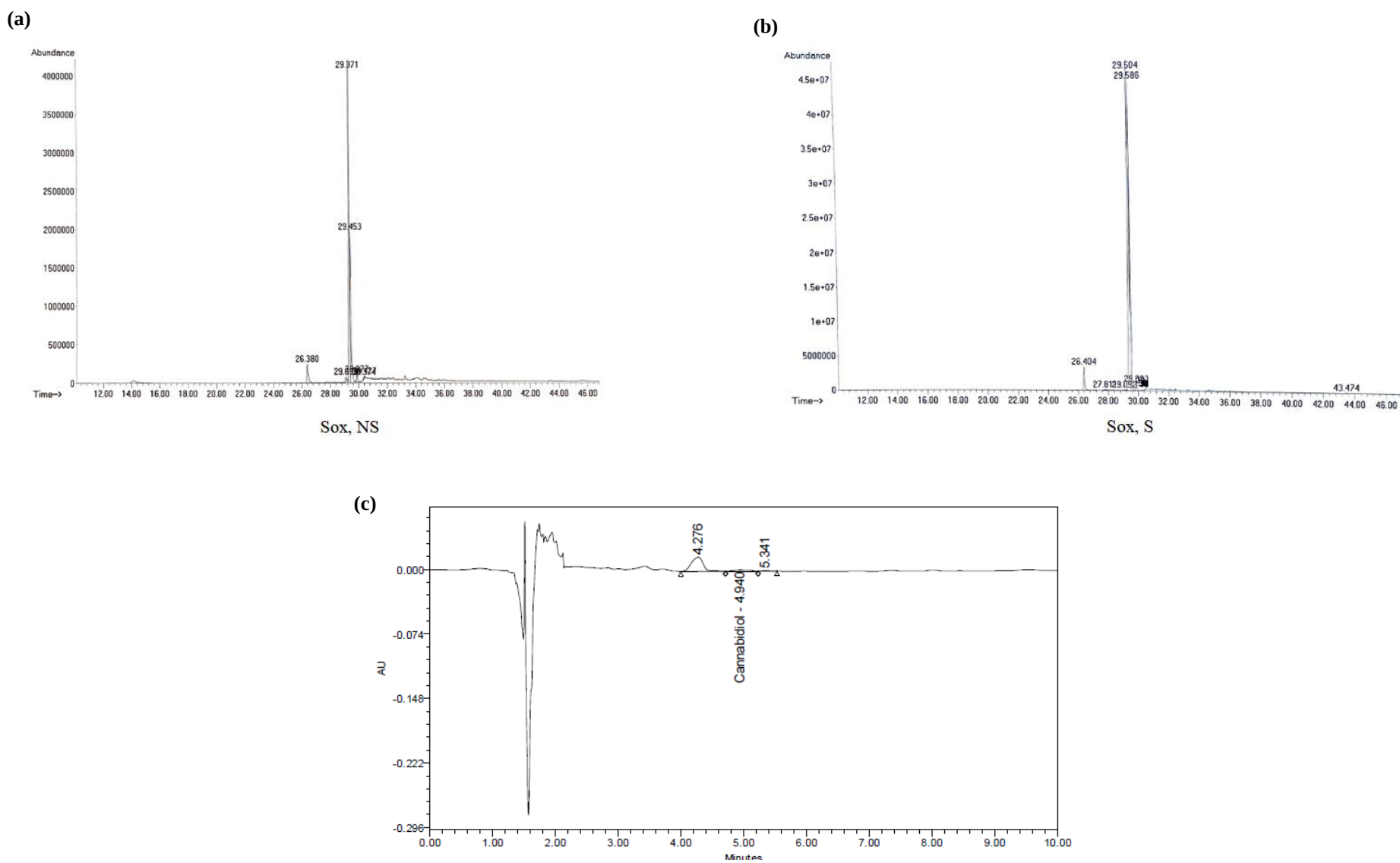
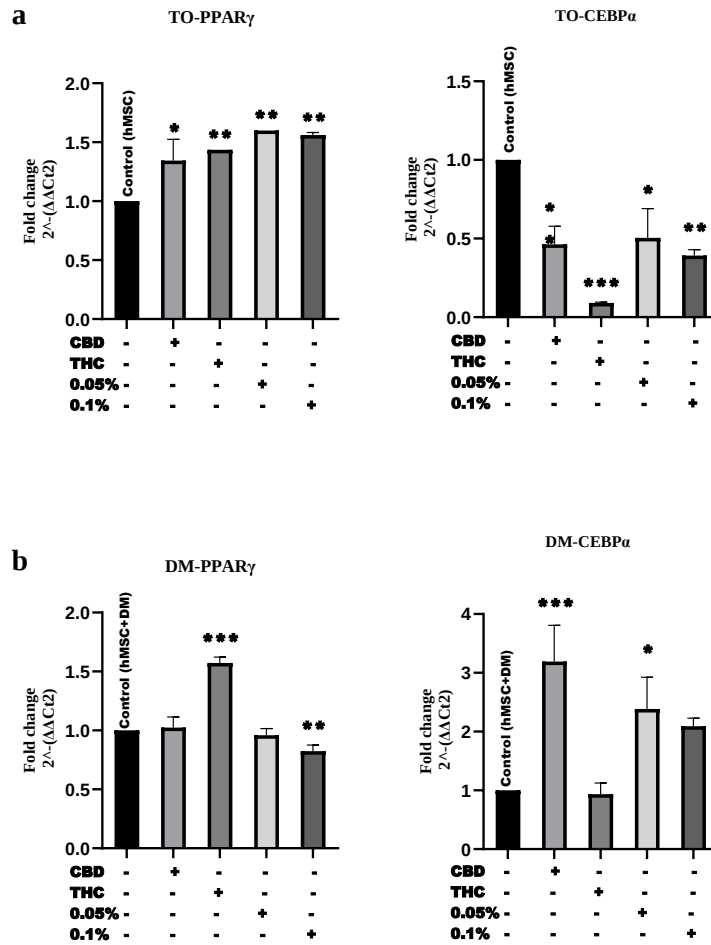


Supplementary Data



Supplementary Figure 1. GC-MS chromatograms: (a) Soxlet extraction of NS hemp seeds. (b) Soxlet extraction of S hemp seed oil. (c) HPLC chromatogram of HSO (cold pressed)



Supplementary Figure 2. Gene expression. mRNA levels of adipogenic gene (PPAR γ and CEBP α) were investigated by quantitative RT-PCR after 72h of culturing with CBD, THC, 0.05% HSO, or 0.1% HSO treatments without DM (a), or with DM (b); the mean $\pm$ SD are shown compared to their controls; ANOVA as * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Supplementary Table S1. Mean Fold change ($2^{-(\Delta\Delta Ct2)}$) of PPAR γ and CEBP α mRNAs expression compared to the control (hMSC)

	PPAR γ mRNA mean of $2^{-(\Delta\Delta Ct2)}$	CEBP α mRNA mean of $2^{-(\Delta\Delta Ct2)}$
hMSC	0	0
TO-CBD	0.345 $\pm$ 0.127	-0.538 $\pm$ 0.082
TO-THC	0.435 $\pm$ 0.113	-0.91 $\pm$ 0.004
TO-0.05% HSO	0.599 $\pm$ 0.023	-0.495 $\pm$ 0.131
TO-0.1% HSO	0.56 $\pm$ 0.016	-0.609 $\pm$ 0.027
hMSC+DM	26.153 $\pm$ 0.791	3.836 $\pm$ 0.797
DM + CBD	26.767 $\pm$ 0.902	14.078 $\pm$ 0.425
DM + THC	41.731 $\pm$ 2.191	3.413 $\pm$ 0.091
DM + 0.05% HSO	25.091 $\pm$ 1.846	10.233 $\pm$ 0.057
DM + 0.1% HSO	21.330 $\pm$ 0.375	9.039 $\pm$ 1.204

Supplementary Table S2. Mean Fold change ($2^{-(\Delta\Delta Ct2)}$) of PPAR γ and CEBP α mRNAs expression compared to the control (DM-hMSC)

	PPAR γ mRNA mean of $2^{-(\Delta\Delta Ct2)}$	CEBP α mRNA mean of $2^{-(\Delta\Delta Ct2)}$
hMSC	-0.963 $\pm$ 0.001	-0.787 $\pm$ 0.049
TO-CBD	-0.95 $\pm$ 0.008	-0.904 $\pm$ 0.002
TO-THC	-0.957 $\pm$ 0.002	-0.981 $\pm$ 0.006
TO-0.05% HSO	-0.941 $\pm$ 0.003	-0.897 $\pm$ 0.015
TO-0.1% HSO	-0.942 $\pm$ 0.002	-0.915 $\pm$ 0.028
DM- hMSC	0	0
DM + CBD	0.025 $\pm$ 0.09	2.191 $\pm$ 0.619
DM + THC	0.573 $\pm$ 0.049	-0.065 $\pm$ 0.191
DM + 0.05% HSO	-0.04 $\pm$ 0.057	1.386 $\pm$ 0.539
DM + 0.1% HSO	-0.176 $\pm$ 0.053	1.092 $\pm$ 0.136

Supplementary Table S3. Sequences of the primers used for qRT-PCR

Primers	Sequence
GAPDH-F	5'-GAGTCCACTGGCGTCTTC-3'
GAPDH-R	5'-GGGGTGCTAAGCAGTTGGT-3'
PPARγ-F	5'-GACCAGAAGCCTGCATTTCTGC-3'
PPARγ-R	5'-CTGTGTCAACCATGGTCATTTCGTT-3'
CEBPα-F	5'-AGGAGGATGAAGCCAAGCAGCT-3'
CEBPα-R	5'-AGTGC GCGATCTGGA ACTGCAG-3'
CB1-F	5'- GTTCTAGCGGACAACCAGCC-3'
CB1-R	5'- TCAATCTCTTTGCCCCCTTCGC-3'
CB2-F	5'- ACTCAACAGGTGCTCTGAGTGG-3'
CB2-R	5'- CTTGTCTAGAAGGCTTTGGGTTGTG-3'
TRPV1-F	5'- TTCGAGTAGCAACCGCCTTC-3'
TRPV1-R	5'- CCCAGTGTGCAACCAGCTAGA-3'
GPCR55-F	5'- ATGACATCTCTCAGCCCTCTCAG-3'
GPCR55-R	5'- ATCAGCTCGTTGACACCGTC-3'
FAAH-F	5'- GAGGACATGTTCCGCTTGGA -3'
FAAH-R	5'- AAGAAGGGAACCAGCGTGTG -3'
MGL-F	5'- GCAAACGAGGATCCGCTGC-3'
MGL-R	5'- GGGAGGTCCTGGTAGGGAAT-3'