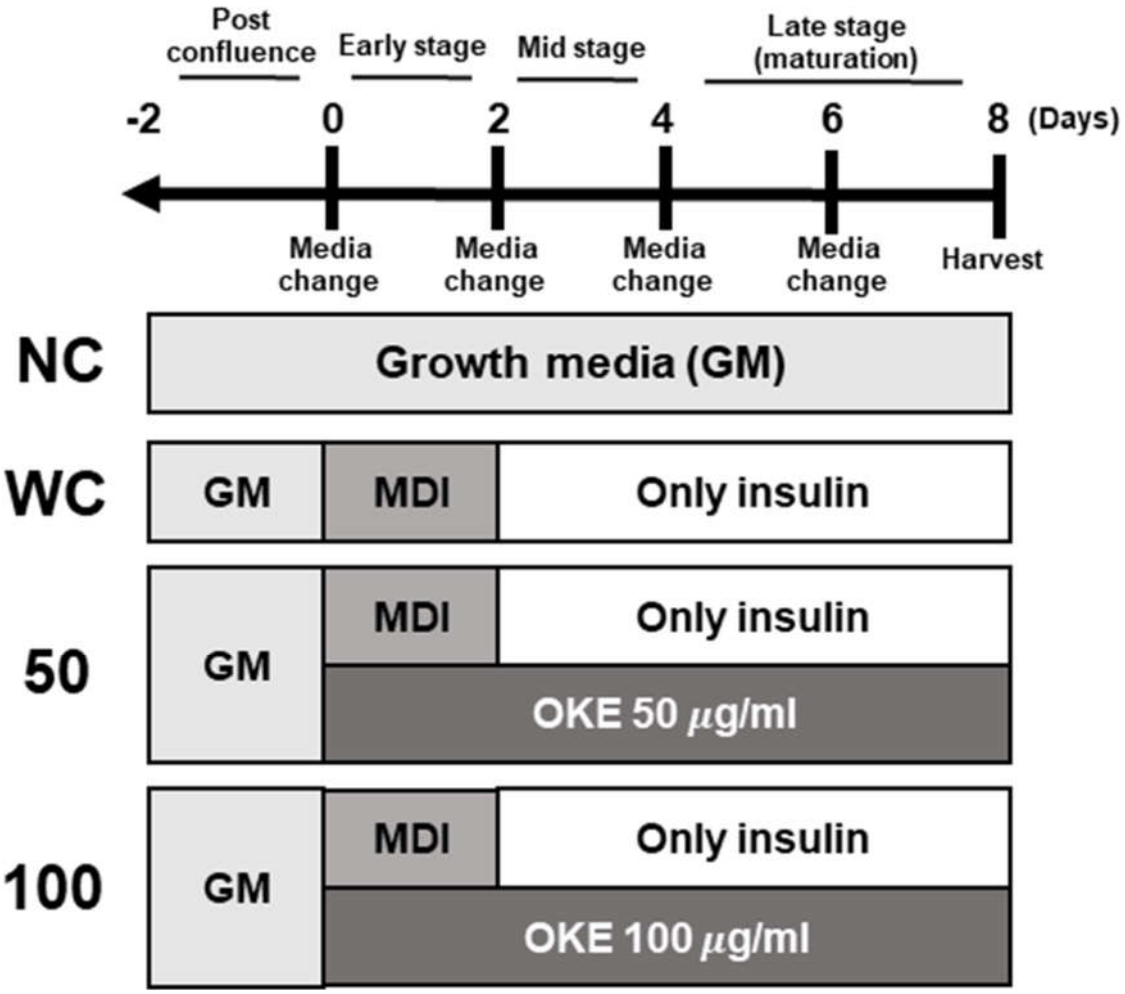
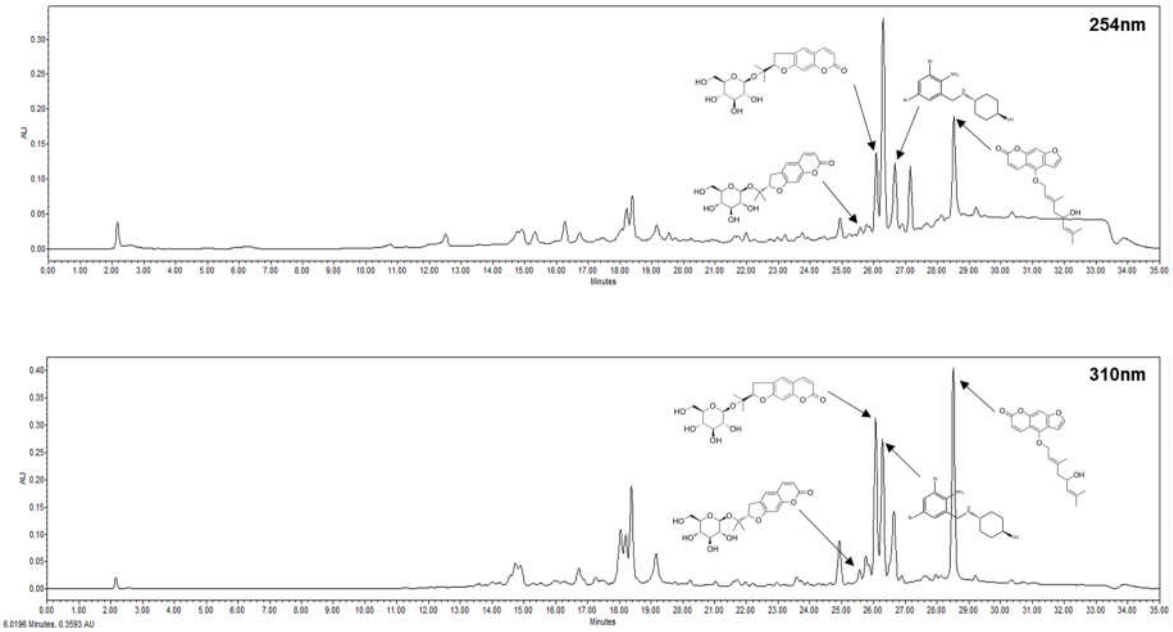


Supplementary Figure S1. Scheme for adipogenic differentiation of 3T3-L1 preadipocytes.

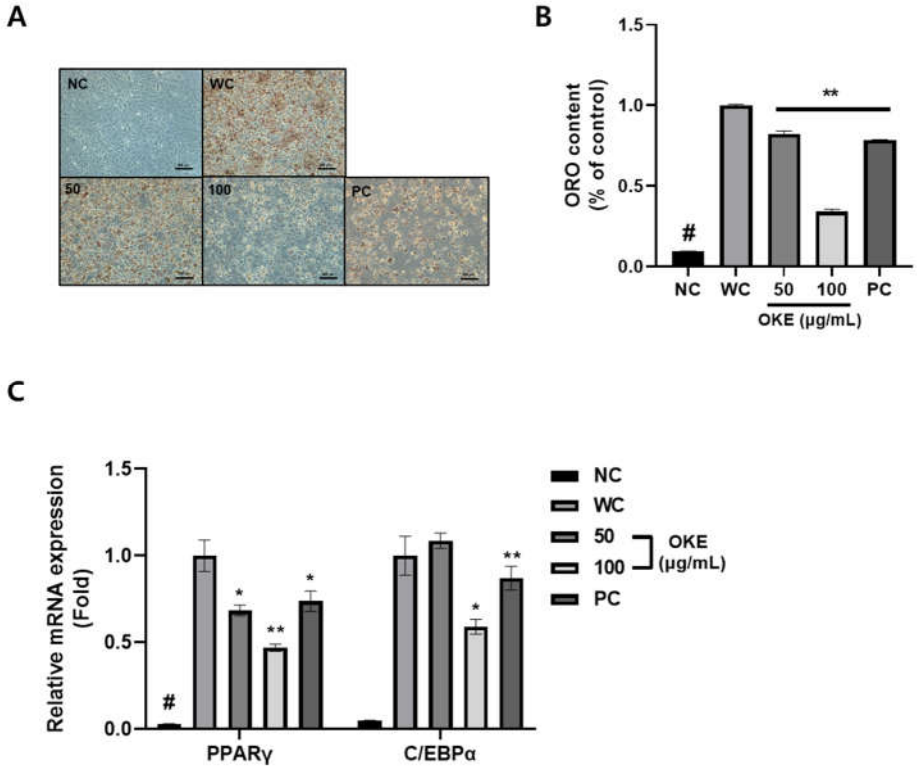
Differentiation was carried out over a total of 8 days according to the scheme, and four groups (NC; non-differentiated cell, WC; white adipocytes, 50; white adipocytes treated with 50 μg/mL OKE, 100; white adipocytes treated with 100 μg/mL) were divided according to the presence or absence of MDI and OKE.



Compound	Formula	MW (m/z)	RT (min)	Absorbance (nm)	Ionization	Compound Nature	Ref
Marmesinin	$C_{20}H_{24}O_9$	408.12	25.566	254, 310	$[M+H]^+$	Psoralen	[26]
Nodakenin	$C_{20}H_{24}O_9$	408.04	26.070	254, 310	$[M+H]^+$	Furanocoumarin	[23]
Ambroxol	$C_{13}H_{18}Br_2N_2O$	377.02	26.287	254, 310	$[M+H]^+$	Amoratic amine	[27]
Notopterol	$C_{21}H_{22}O_5$	354.44	28.511	254, 310	$[M+H]^+$	Furanocoumarin	[28]

Supplementary Figure S2. Tentative identification of components contained in OKE

Ion chromatography of OKE in positive mode by LC-MS analysis and profiling of the tentative components.



Supplementary Figure S3. comparison of inhibition of adipogenic differentiation and lipid accumulation between OKE and the positive control (PC).

(**A, B**) To compare the effects of OKE and PC (Green tea extract at 100 μg/mL) on inhibiting adipogenic differentiation and lipid accumulation, mature adipocytes were stained using Oil-red O staining, and Oil-red O products were dissolved in isopropanol and quantified at 450 nm using a microplate reader. (**C**) To compare the inhibitory effects of OKE and PC on adipogenic differentiation transcription factors, the mRNA expression of Pparγ and C/ebpα in 3T3-L1 adipocytes was determined by real-time reverse transcription polymerase chain reaction (RT-PCR). The expression of all factors was normalized to the expression level of β-actin. All experiments were performed in three biologically and technically independent replicates. The data are expressed as the mean ± standard deviation. * $p < 0.05$ compared with the WC group; ** $p < 0.01$ compared with the WC group. # $p < 0.01$ when compared with the NC group.

Supplementary Table S1. primer sequences used in RT-PCR.

Gene name	Accession No.		Sequence
Ap2	NM_001409513.1	Forward	5'-AAGGTGAAGAGCATAACCCT-3'
		Reverse	3'-TCACGCCTTTCATAACACATTCC-5'
C/ebpα	NM_001287523	Forward	5'-TTACAACAGGCCAGGTTTCC-3'
		Reverse	3'-GGCTGGCGACATACAGATCA-5'
Pparγ	AB644275	Forward	5'-TTTTCAAGGGTGCCAGTTTC-3'
		Reverse	3'-AATCCTTGGCCCTCTGAGAT-5'
β-actin	EF095208	Forward	5'-GACAACGGCTCCGGCATGTGCAAAG-3'
		Reverse	3'-TTCACGGTTGGCCTTAGGGTTCAG-5'

Supplementary Table S2. **i**nformation on antibodies used in Western blot.

Gene name	Company	Product No.	IgG	Conc.
Primary antibody				
PPARγ	SCBT	sc-7273	M	1:500
C/EBPα	CST	2295S	R	1:1000
Adiponectin	Abcam	ab22554	M	1:1000
pAMPK	CST	2531S	R	1:1000
AMPK	CST	2532S	R	1:1000
GLUT4	CST	2213S	M	1:1000
β-actin	SCBT	sc-47778	M	1:500
Second antibody				
Mouse	CST	7076S		1:2000
Rabbit	CST	7074S		1:3000