Supplement table

Table 1 Major components of chestnut Castanea mollissima shell polyphenol extract (CSP)

Component	Content (mg/g)
Vanillic acid	0.26±0.01
Myricetin	0.77±0.02
Androgenic acid	0.27±0.01
Quercetin	1.64±0.05
Trans-4-hydroxy-3-methoxycinnamic acid	0.08±0.00
Trans-p-coumaric acid	0.09±0.00
3,4-dihydroxybenzoicacid	5.54±0.15
Gallic acid	11.20±0.79
Ellagic acid	1.15±0.03
Procyanidin C1	126.00±2.72
Procyanidin B1	148.00±2.57
Procyanidin B2	18.70±0.83
(+)-Catechin	46.90±1.12
(-)-Epicatechin	2.07±0.09
Quercetin 3-glucoside	0.32±0.01
(-)-Epicatechin gallate	1.73±0.06
(-)-Epigallocatechin gallate	0.09±0.00
Total	364.81±3.58

Values are expressed as the mean ± standard deviation, n = 3.

Supplement figure

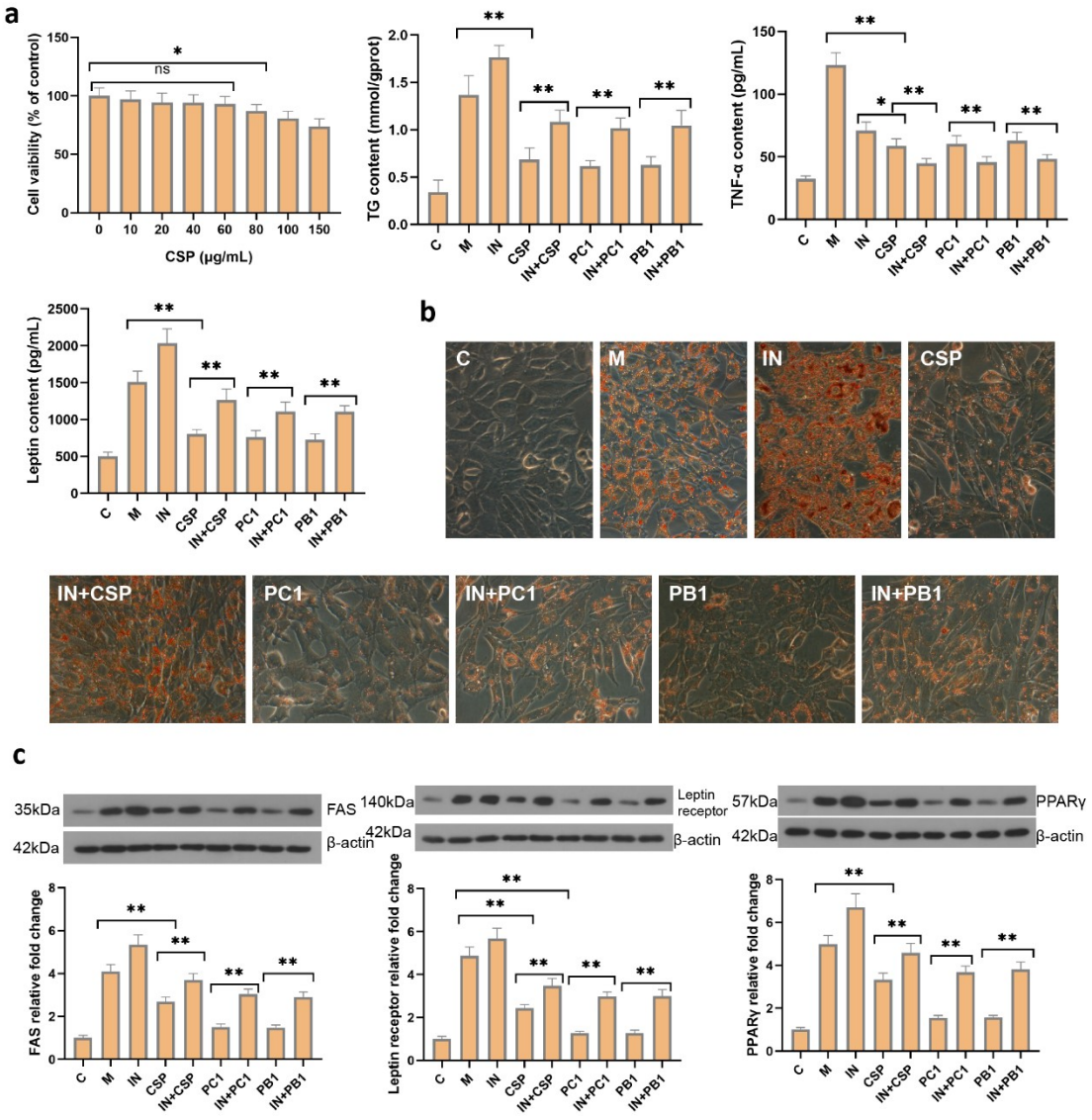

Figure S1. CSP, monomer components PC1 and PB1 reduce fat accumulation in 3T3-L1 cells

3T3-L1 cells were cultured with DMEM containing high sugar at 37 °C and 5% CO_2 to achieve cell fusion. Next, 48 h after fusion (day 0), Inducer 1 (high glucose DMEM complete medium containing 0.5 mmol/L IBMX + 1 μmol/L dexamethasone + 1 μg /mL insulin + 10% FBS + 100 U/mL penicillin + 100 μg/mL streptomycin, Aladdin, China) was cultured for 48 h.

Inducer 2 (DMEM complete medium with high glucose containing 1 μg/mL insulin) was cultured for 48 h. The medium was changed every two days until 9–11 days. After 48 h of fusion, cells were induced to differentiate. Inducer 1 was added to culture for 48 h, and inducer 2 was changed with or without CSP (60 μg/mL)/JAK2 inhibitor AG490 (50 μmol/L) (A126525, Aladdin, China) for 48

h. The media was then changed to normal medium with or without CSP (60 μg/mL)/monomer drug (procyandin C1/procyandin B1, 20 μM, Shyuanye, Shanghai, China). The grouping and treatment methods are as follows:

C, control group (normal culture). M, model group (Inducer 1 cultivation 48 h + Inducer 2 cultivation 48 h + ordinary medium; IN, Model + inhibitor group (culture with inducer 1 for 48 h+ culture with inducer 2 containing AG490 for 48 h + culture with ordinary medium). CSP, Model + CSP group (culture with inducer 1 for 48 h + culture with inducer 2 containing CSP for 48 h + culture with common medium containing CSP). IN+CSP, Model + inhibitor group + CSP group (culture with inducer 1 for 48 h+ culture with inducer 2 containing AG490 and CSP for 48 h+ culture with common medium containing CSP). PC1 and IN+PC1，Model + procyandin C1 group, model + procyandin C1 group and group 4 had the same conditions except with polyphenols. PB1-IN+PB1, Model + inhibitor + procyandin B1 group and model + inhibitor + procyandin B1 group had the same conditions as group 4, except with polyphenols. $^{**}p < 0.01$, $^{*}p < 0.05$.