

Fig. S1 Body weight and food intake were recorded once a week during the modeling period. Data were expressed as means  $\pm$  SEM (n =8), <sup>###</sup>P < 0.001 versus control group; <sup>\*\*\*</sup>P < 0.001 versus model group.

Con, control; Mod, stress-induced liver injury; AC, acetylcysteine; HT\_L, low-dose hydroxytyrosol; HT\_H, high-dose hydroxytyrosol.

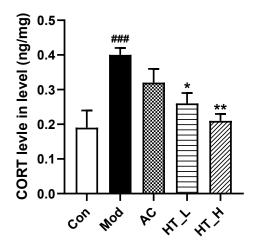


Fig. S2 The effect of HT on liver CORT concentration. Data were expressed as means  $\pm$  SEM (n =8), ###P < 0.001 versus control group; \*\*P < 0.01, \*P < 0.05 versus model group.

Con, control; Mod, stress-induced liver injury; AC, acetylcysteine; HT\_L, low-dose hydroxytyrosol; HT\_H, high-dose hydroxytyrosol.

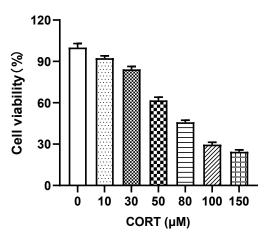


Fig. S3 Cell viability of AML-12 cells with different concentrations of CORT

CORT, corticosterone

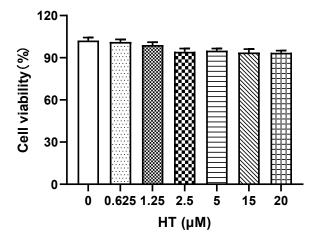


Fig. S4 Cell viability of AML–12 cells with different concentrations of HT HT, hydroxytyrosol

Day -	Week			
	Week 1	Week 2	Week 3	Week 4
Sunday	White noise: 1 h (100 DB)			
	Overnight stroboscope: 12 h (120 times/min)	Cage tilt: 24 h	Cage tilt: 24 h	Cage tilt: 24 h
Monday	Shock: 30 min (150 times/min)	Shock: 30 min (150 times/min)	Shock: 30 min (150 times/min)	Cold forced swimming: 5 min
Tuesday	Restraint: 1 h Overnight illumination: 12 h	White noise: 2 h (100 DB) Overnight stroboscope: 12 h (120 times/min)	Water depravation: 24 h	Shock: 30 min (150 times/min)
Wednesda y	Cold forced swimming: 5 min	Restraint: 2 h Overnight illumination: 12 h	Tail pinch: 2 min	Soiled cage: 24 h
Thursday	Soiled cage: 24 h	Soiled cage: 24 h	Soiled cage: 24 h Restraint: 2 h	Tail pinch: 2 min
Friday	Tail pinch: 2 min	Cold forced swimming: 5 min	Overnight illumination: 12 h	Food depravation: 24 h
Saturday	Water depravation: 24 h	Food depravation: 24 h	Food depravation: 24 h	Soiled cage: 24 h

## Table S1. Chronic unpredictable stress regime