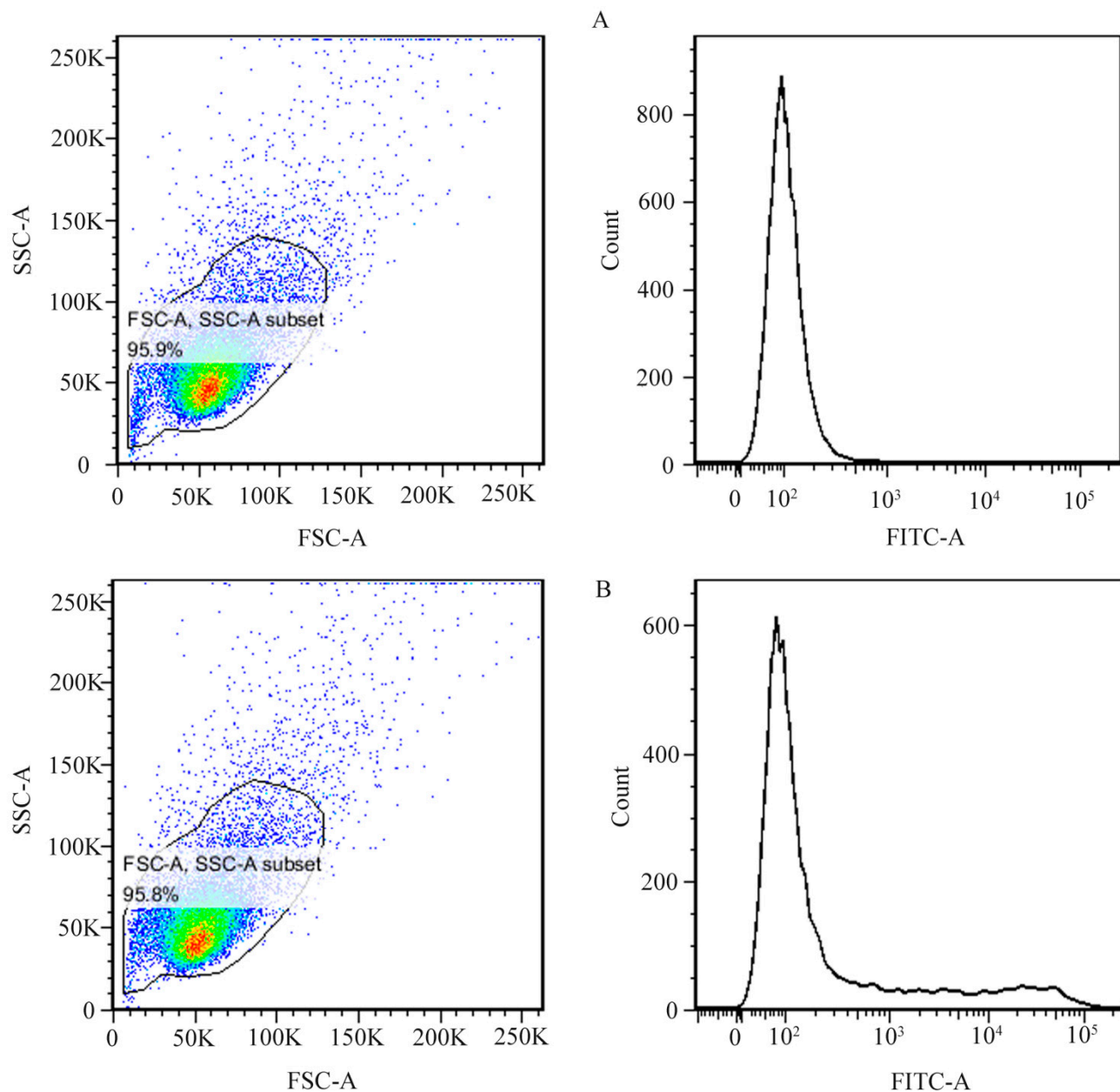
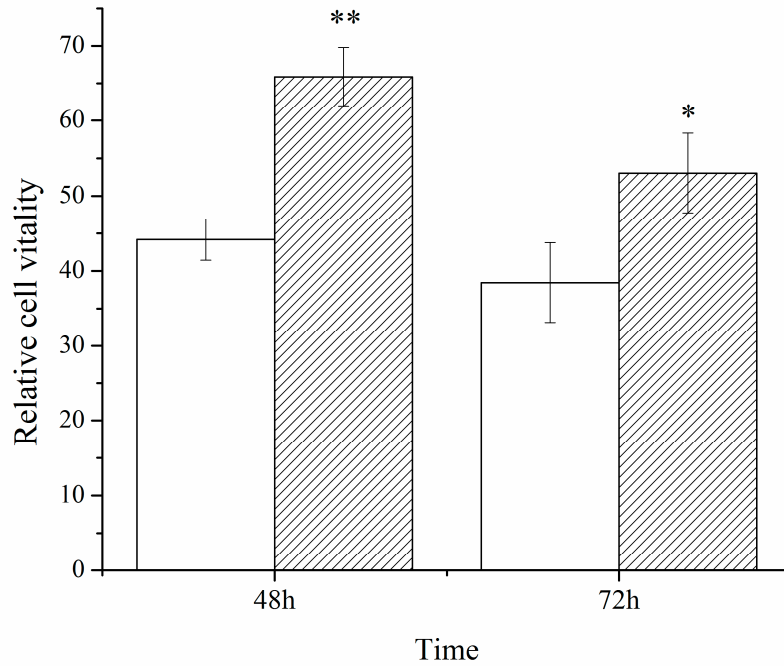


## Supplementary Information



**Figure S1.** The fluorescence intensity level in (A) HepG2 cells and (B) EGFP-YieF-HepG2 cells by flow cytometry. The fluorescence intensity was 22.5% in EGFP-YieF-HepG2 cells.



**Figure S2.** Influence of *yieF* expression on the viabilities of untransfected HepG2 and stable transfectants HepG2-YieF after incubation with 5  $\mu$ M Cr(VI) for 48 to 72 h. The viability of HepG2 cells grown without Cr(VI) after 48 and 72 h was set as viability level of 100. Bars represent the relative metabolic rates of HepG2 cells (□) and HepG2-YieF cells (▨). \*  $p < 0.05$ , \*\*  $p < 0.01$ .

### Supplementary Materials and Methods:

#### *Flow cytometry to examine the fluorescence intensity*

EGFP-YieF HepG2 cells and HepG2 cells were cultivated for 24 h. Then cells were harvested and resuspended in PBS buffer. The fluorescence intensity was determined by FCM using standard protocol.

#### *Cell viability assay*

$5 \times 10^3$  cells were grown in a 96-well plate with or without 5  $\mu$ M Cr(VI). After incubation for 48 and 72 h, 20  $\mu$ L of 5 mg/mL 3-(4,5-dimethylthiazol-2-yl)-5-(3,4-diphenyltetrazoliummethyl)carbazole (MTT) was added into each well. Cells were incubated for 4 h at 37  $^{\circ}$ C, and then culture medium was replaced by 150  $\mu$ L DMSO (Sigma). The absorbance of the formazan product at 490 nm was measured on a plate reader [30]. All experiments were performed in three replicates.