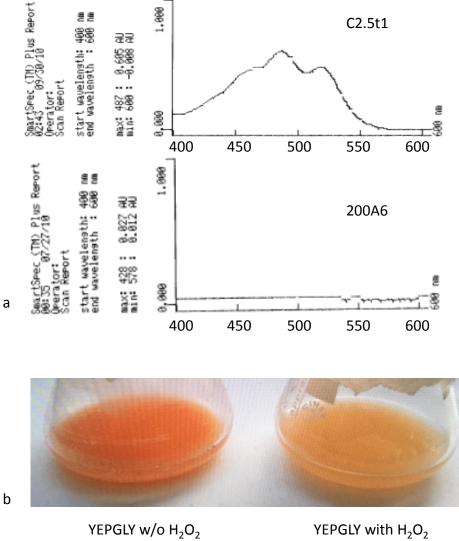


Supplemental Figure 1. Flow cytometry of PI stained cells. Cells samples were resuspended in PBS (NaCl 8.0 g /l, KCl 0.20 g/l, Na<sub>2</sub>HPO<sub>4</sub> 1.44 g/l, KH<sub>2</sub>PO<sub>4</sub> 0.24 g/l, pH 7.4) to a final concentration of  $1*10^6$  cells/ml. Cell suspensions were stained as follows: 10 µl PI stock solution (10 mg/ml) in PBS was added to 1 ml of cell suspension just prior to the analysis. Samples were analyzed with a BD FACSCalibur equipped with argon laser (15 mW, emission 488 nm) for the aquisition of fluorescence: FL1 (green, 525 nm), FL2 (yellow, 575 nm) and FL3 (orange-red, 620 nm). Fluorescence was detected in fluorescence channel 3. a) Cells treated with 70% ethanol (positive control of cell membrane permeability); b and c) Cells sampled after 1 hour incubation in YEPGLY w/o and YEPGLY with 16 mM H<sub>2</sub>O<sub>2</sub>, respectively.



Supplemental Figure 2. a) Carotenoids quantification. Representative images of UV/VIS scanning spectra of total carotenoids. B) Effect of hydrogen peroxide on carotenoids content in C2.5t1.

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