



Establishment of a hepatocyte steatosis model using Chang liver cells

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Genet. Mol. Res. 14 (4): 15224-15232 (2015)

Received June 15, 2015

Accepted September 24, 2015

Published November 25, 2015

DOI <http://dx.doi.org/10.4238/2015.November.25.10>

ABSTRACT. The objective of this study was to explore the experimental conditions for hepatocellular steatosis models of Chang liver cells induced by oleic acid (OA). For that, Chang liver cells were induced by different concentrations of OA for different periods. The MTT assay was used to detect hepatic cell activity, the Oil Red O staining was used to observe intracellular lipid droplets accumulation, and the glycerol phosphate oxidase method was used to detect the triglyceride (TG) content in the Chang liver cell. The hepatocellular steatosis models of Chang liver cell were established successfully by inducing with 0.2 mM OA for 24h. TG content in model cells was 379.98 ± 23.19 mg/g, which is significantly different from control cells (185.03 ± 12.68 mg/g; $P < 0.01$). These were considered proper conditions for establishing hepatocellular steatosis models of Chang liver cells, producing a reliable model for nonalcoholic fatty liver disease research.

Key words: Fatty liver; Steatosis model; Cells; Oleic acid; Chang liver cells