

DC2 GENE EXPRESSION IN THIOACETAMIDE-INDUCED LIVER FIBROSIS IN MICE
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BACKGROUND/AIMS:

DC2 protein (GenBank accession number NP_067050) is a 16,892 Da protein. SOURCE search of Stanford University suggested that liver ranks 4th among the DC2-expressed organs. Cancer Gene Expression Database revealed that DC2 protein may be associated with hepatocellular carcinoma. DC2 protein was further identified by mass spectrometry as a subunit of mammalian oligosaccharyltransferase recently. Thioacetamide (TAA), a potent hepatotoxicant, may cause liver fibrosis. We aimed to evaluate the mRNA expression of DC2 gene in thioacetamide-induced liver fibrosis in mice.

METHODS:

Male 8-week-old ICR mice were purchased. Hepatic fibrosis was induced by giving 300 mg/L TAA in the drinking water of the mice. Four mice were sacrificed simultaneously after 0, 2, 4, 7, 14, 28, 56, 70, 84 and 98 days of TAA administration. mRNA of DC2 gene of liver was evaluated by RT-PCR. Semi-quantification of mRNA of DC2 gene was estimated by software FUJIFILM Multi Gauge V2.02 and ranked.

RESULTS:

The mRNA expression of DC gene after different durations of TAA administration revealed that the DC2 gene expression was increased.

DISCUSSION/CONCLUSIONS:

TAA may induce DC2 gene expression. However, the DC2 gene expression did not increase gradually after TAA administration in this study. This might be explained by the following:

1. The amount of TAA-containing drinking water was different in the same group of mice.
2. The metabolism rate of TAA between each mouse was different.

Keywords : Thioacetamide, DC2 gene, liver fibrosis.