

## Acute Iron Dextran Injection Increases Liver Weight and Reduces Glycerol Kinase Expression in Liver

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## **Acute Iron Dextran Injection Reduces Glycerol Kinase Expression in Liver**

### **Abstract**

**Introduction:** Iron is essential and needed in a very small amount. When iron exceeds normal need, metabolic alteration occurs, causing hepatosteatorosis. The mechanism of iron causing hepatosteatorosis is yet known. Glycerol kinase, enzyme responsible in triglyceride synthesis initiation, is assumed to have role in pathomechanism of hepatosteatorosis.

**Objective:** To investigate the expression of glycerol kinase in acute iron overload condition.

**Method:** This study was conducted in Animal Laboratory Faculty of Medicine and Central Laboratory Universitas Padjadjaran from May to June 2017. Three groups of mice were divided by dose of iron dextran injection (0, 0.1, 0.3mg/day/mice). After 19 days, Mice were terminated, liver weight was measured and glycerol kinase expression in liver was determined by semi-qualitative PCR. Quantification of PCR result was calculated by ImageJ software.

**Result :** There were significant change in liver weight of the mice appropriate with dose of iron injection. The expression of glycerol kinase were decreasedfound, but statistically insignificant.

**Conclusion:** Acute iron dextran injection increases liver weight and reduces glycerol kinase expression in mice liver.

**Keywords:** Glycerol Kinase; Hepatosteatorosis; Iron Overload