Diabetes is an important cause of oxidative stress. Furthermore, this oxidative damage is responsible for many complications of diabetes. Cellular damage and cell death due to oxidative damage lead to hepatic steatosis and hepatocyte degeneration (1). Silibinin is a potent flavanoid antioxidant derived from a plant called Silybum Marianum (2). The aim of this experimental study was to investigate the effects of silibinin on liver damage of Streptozotocin (STZ)-induced diabetic rats through histochemical methods. There were five groups in our study as follows: The Control group, Diabetic Group, Treatment Group 1 (diabetic group treated with 100 mg/kg silibinin), Treatment Group 2 (diabetic group treated with 200 mg/kg silibinin), and Silibinin Group (no diabetes, but with 5 rats treated with 100mg/kg and 5 rats treated with 200 mg/kg silibinin). STZ was administered at a dose of 65mg/kg through intraperitoneal injection and Silibinin was administered through gastric gavage for 4 weeks. We found that histologically, there was a decrease in hepatic steatosis and liver damage in silibinin-treated diabetic groups. Diabetes causes microvascular and macrovascular pathologies that affect many organs and systems. One mechanism for these effects is oxidative stress. Silibinin is a potent flavonoid antioxidant, which is also known as a hepatoprotective agent (3). As in the other previous studies, we found that silibinin improved hepatic injury in diabetic rats, but the molecular mechanism of this effect is still unknown.