

# **Effect of Tetramethylpyrazine on Lipid Peroxidation in Streptozotocin-Induced Diabetic Mice**

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摘要

## **Abstract**

Oxygen free radicals have been suggested to be a contributory factor in complications of diabetes mellitus. In the present study, we investigated the effect of tetramethylpyrazine (TMP) (10, 25 and 50 mg/kg), an active component of a Chinese medicinal plant *Ligusticum wallich Franch (chuanxiang)*, on streptozotocin (STZ)-induced diabetic male ICR mice. STZ was injected as a single daily dose (4 mg/kg i.p. in buffered citrate solution, pH 4.0) for one week. A single daily dose of TMP (10, 25 or 50mg/kg i.p.) was administered for 2 weeks to the STZ-induced diabetic mice immediately following 1 week STZ induction. Plasma glucose and serum blood urea nitrogen (BUN) concentrations were estimated at the time of sacrifice. Malonaldehyde (MDA) formation was measured from the liver and kidney tissues. TMP dose dependently inhibited glucose concentration and BUN elevation. TMP also remarkably reduced the degree of lipoperoxidation. Our results indicate that TMP may be an effective agent for treatment of diabetes mellitus complications with oxidative stress.