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JZUS-B

Myricetin protects against diet-induced obesity and ameliorates oxidative stress in C57BL/6 mice

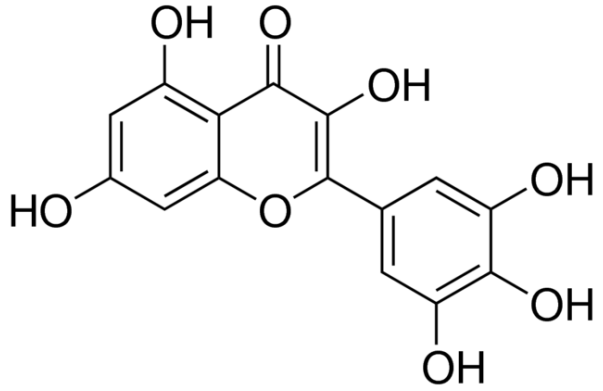
Key words: Myricetin, Obesity, Adipogenesis, Oxidative stress

Research Background

Myricetin is a naturally occurring antioxidant commonly found in various plants. However, little information is available with respect to its direct anti-obesity effects. This study was undertaken to investigate the effect of myricetin on high-fat diet (HFD) induced obesity in C57BL/6 mice.



Myricetin is presented in bayberry

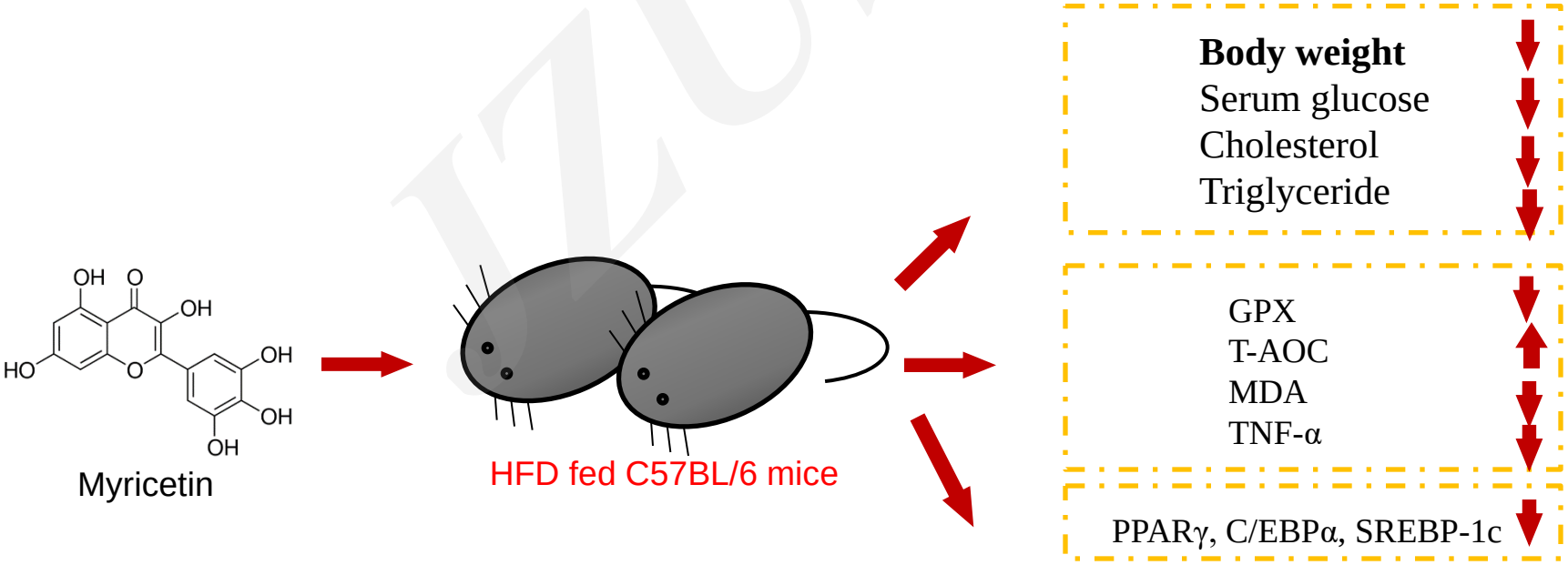


The chemical structure of myricetin

ZUST

Research Summary

- **Myricetin reduced the body weight of HFD-induced C57BL/6 mice.**
- **Myricetin ameliorated obesity associated oxidative stress and inflammation.**
- **Myricetin down-regulated the expression of PPARγ, C/EBPα and SREBP-1c.**



Research Significance

Myricetin decreased serum glucose levels, regulated lipid metabolism and provided protection against HFD-induced oxidative stress in obese mice. A further mechanistic study revealed that administration of myricetin down-regulated the expression of adipogenic (PPARγ and C/EBPα) and lipogenic (SREBP-1c) genes in HFD-induced mice. Therefore, consumption of myricetin may help to prevent obesity and obesity-related metabolic complications.