



Effect of Total Flavones of Buckwheat Flowers and Leaves on Protein Tyrosine Phosphatase 1B Expression in Type 2 Diabetic Rats

Xiang-Bo GOU¹, Shu-Ying HAN^{1*}, Jing-Man XU², Hong YU¹, Jin-Xiu CHU¹,
Zhi-Lu WANG³, Jing BAI¹, Fu-Yuan CAO⁴, & Ting HAN¹

¹ Department of Pharmacology, ² Heart Institute and

⁴ Laboratory Animals Center, Hebei United University,
57 Jianshe South road. Tangshan 063000, Hebei, China.

³ College of Primary Education, Tangshan Normal University, Tangshan 063000, Hebei, China;

SUMMARY. The total flavone content was obtained from flowers and leaf of buckwheat (*Fagopyrum esculentum* Moench) by heating reflux method. The effects of the total flavone extract on the protein tyrosine phosphatase 1B (PTP1B) expression in type 2 diabetic rats were evaluated by immunofluorescence, western blotting and real-time quantitative PCR. The results suggested that the total flavone fraction from buckwheat flowers and leaves can significantly decrease the PTP1B expression in liver.

KEY WORDS: Buckwheat flower and leaves, Insulin resistance, Protein tyrosine phosphatase 1B, Total flavones, Type 2 diabetes.

* Author to whom correspondence should be addressed. *E-mail:* shuyinghan59@126.com