

TITLE

**Antidiabetic Effects
of *Vigna nakashimae*
Extract in db/db Mice**

Myeong Ho Jung

Pusan National University School of Korean
Medicine, Gyeongsangnam-do 626-770,
South Korea

The inhibitory activity of *Vigna nakashimae* extract against intestinal α -glucosidase was investigated in vitro and in vivo. The extract exerted a significant inhibitory effect against intestinal α -glucosidases. With sucrose-loading, it reduced the peak responses of blood glucose significantly in normal mice. Next, it was administrated to 8-week-old db/db mice for 2 weeks, and then plasma glucose, triglyceride, and total cholesterol levels were measured. The extract significantly suppressed postprandial hyperglycemia and blood glycated hemoglobin in the *db/db* mice. In addition, it lowered fasting glucose and improved glucose tolerance. Furthermore, it led to significant decreases in plasma triglyceride levels. It reduced endoplasmic reticulum stress in thapsigargin-induced HepG2 cells. Taken together, these results suggest that *Vigna nakashimae* extract has hypoglycemic and hypolipidemic effects that occur via inhibition of α -glucosidase activity and endoplasmic reticulum stress.

Biography

Myeong Ho Jung has completed his Ph.D at the age of 29 years from Yonsei University, South Korea and postdoctoral studies from University of Texas Health Science Center at SanAntonio. He is associate professor in Pusan National University. He has published more than 40 papers in reputed journals since 2006.