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Antidiabetic Activities of Chalcones Isolated from a Japanese Herb, *Angelica keiskei*

(明日葉から単離されたカルコンの抗糖尿病作用)

Diabetes mellitus is a chronic disease that is characterized by hyperglycemia caused by insufficient insulin action. We have explored the edible ingredients from folk medicines in Japan that contain substances complementing insulin action, such as the induction of adipocyte differentiation and the enhancement of glucose uptake. We eventually found that the ethanol extract from a Japanese herb "Ashitaba", *Angelica keiskei*, contained two major chalcones of 4-hydroxyderricin (4-HD) and xanthoangelol that showed strong insulin-like activities via a pathway independent of the peroxisome proliferator-activated receptor- γ activation. The 4-HD especially showed the preventive effects on the progression of diabetes in genetically diabetic KK- A^y mice.