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2,5-Dihydroxy-4,3'-di(β -D-glucopyranosyloxy)-trans-stilben compound isolated from *Morus bombycis* Koidzumi is related to the antidiabetic

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Objectives

We identify and investigate the biological activities of this compound is associated with antidiabetic activity from *Morus bombycis* Koidzumi.

Materials and Methods

1. Material

Plant - *Morus bombycis* Koidzumi.

2. Methods:

ESR spectrometer was used to measure superoxide anion radicals in the form of spin adducts of DMPO-OOH.

The effect of Antidiabetic was tested on β cell line HIT-T15.

This compound was isolated and purified by MCl gel column and Sephadex LH-20, and identified as antidiabetic compound by mass and IR spectrophotometries, and ^1H - and ^{13}C -NMR.

Results and Discussion

Antidiabetic-active compound was isolated and purified by MCl gel column and Sephadex LH-20, and identified as 2,5-Dihydroxy-4,3'-di(β -D-glucopyranosyloxy)-trans-stilben by mass and IR spectrophotometries, and ^1H - and ^{13}C -NMRs. Measurement of the ESR signals showed that the compound reduced the DMPO-OOH signal in a dose-dependent manner. Aqueous layer from 80% methanol extract of *Morus bombycis* Koidzumi showed antidiabetic effect on β cell line HIT-T15.

Based on these results, we suggest that *Morus bombycis* Koidzumi is related to the antidiabetic activity.

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