

Isolation of Polyhydroxylated Alkaloids from Silkworms (*Bombyx mori* L.) and Enzyme Inhibition Test

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It is well known that isolated polyhydroxylated alkaloids from Mulberry trees and silkworms inhibit to α -glucosidase, β -glucosidase, β -galactosidase activity. HS-58 compound was purified among the 7 types polyhydroxylated alkaloids from the silkworms (*Bombyx mori* L.) used by amberlyst 15, dowex 1X2-100, amberite CG-50 ion-exchange resin and sephadex C-25 column chromatography.

1-Deoxynojirimycin has potential inhibition activity to α -glucosidase but weak to β -glucosidase. New isolated HS-58 compound which was weak inhibition to α -glucosidase, showed very strong inhibition activity to β -glucosidase than 1-deoxynojirimycin.

Futhermore, almost isolated polyhydroxylated alkaloids including HS-58 compound showed comparatively high inhibition activity to maltase extract from the porcine intestine.