subject to acetylation followed by dehydration. But the presence of 1-hydrazinophthalazine and acetylated 1-hydrazinophthalazine could not be confirmed because of its lability.[3,5]

M-1 was administered orally to Wistar-strain male rats. In this experiment M-1 gave M-4 and M-5. However, M-1 did not turn over to M-3, indicating no existence of decarboxylation of M-5. This fact suggested that 1-hydrazinophthalazine subjected to formylation took place ring closure accompanied by dehydration to give M-3.

M-6, M-7, and M-8 are thought to have two possible pathways. But we could not confirm it.

Further studies are required on the metabolism of DJ-1461 in order to elucidate quantitatively its absorption, distribution, and excretion.

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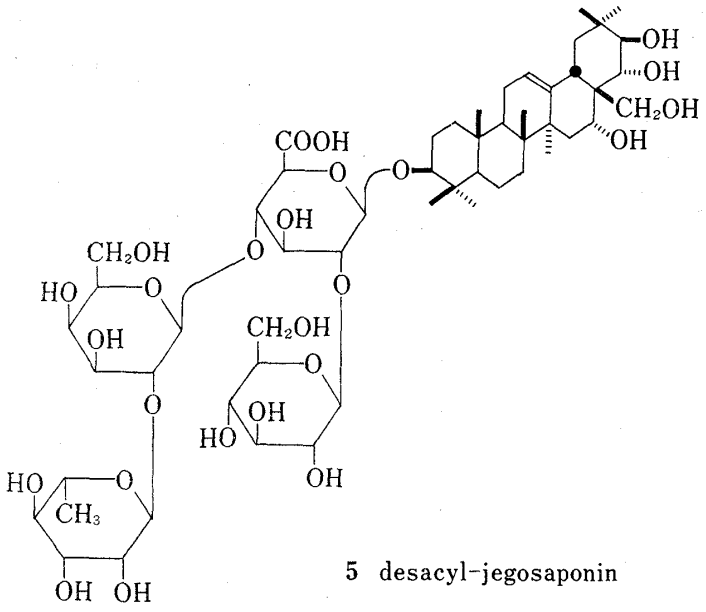
Revised Structure of Desacyl-jegosaponin

Very recently, we proposed the structure of desacyl-jegosaponin, a common desacyl-derivative of jegosaponin which was obtained from the pericarps of *Styrax japonica* Sieb. et Zucc., as barringtogenol C(3)-[β-D-glucopyranosyl $(1_{glu}\rightarrow 2_{glr})$][α-L-rhamnopyranosyl$(1_{rham}\rightarrow 3_{gal})$-β-D-galactopyranosyl$(1_{gal}\rightarrow 4_{glr})$]-β-D-glucuronopyranoside,[1] in which the location of rhamnose moiety at 3-OH of the galactose moiety was determined on the basis of methanolysis of the $LiAlH_4$ reduction product of the permethylate of desacyl-jegosaponin. We reported that the methanolysis furnished methyl 2,3,4,6-tetra-O-methyl-D-glucopyranoside, methyl 2,3,4-tri-O-methyl-L-rhamnopyranoside, methyl 2,4,6-tri-O-methyl-D-galactopyranoside (**1**),and methyl 3-O-methyl-D-glucopyranoside as determined by gas–liquid chromatography (GLC), among which the identification of **1** was a determining evidence for the location of rhamnose on the galactose moiety.



5 desacyl-jegosaponin

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However, in the course of the structure study on the soybean saponins as described in the following paper,[2] we have noticed that the above determination of **1** was based on the erroneous GLC operations. The repeated GLC determinations using methyl 2,3,4-tri-O-methyl- (**2**), methyl 2,3,6-tri-O-methyl- (**3**), and methyl 3,4,6-tri-O-methyl-galactopyranoside (**4**) along with **1** for comparison, have finally disclosed that the obtained methyl tri-O-methyl-galactopyranoside was identical with **4** but not with **1**.

Consequently, we would like to revise our previous proposal on the structure of desacyljegosaponin to barringtogenol C(3)-[β-D-glucopyranosyl($1_{glu}\rightarrow 2_{glr}$)][$\alpha$-L-rhamnopyranosyl ($1_{rham}\rightarrow 2_{gal}$)-$\beta$-D-galactopyranosyl($1_{gal}\rightarrow 4_{glr}$)]-$\beta$-D-glucuronopyranoside (**5**).

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Structures of Three Soybean Saponins: Soyasaponin I, II, and III

Although the sapogenol compositions of soybean (*Glycine max* Merrill) were elucidated as soyasapogenol A,[1,2] B (**1**, major),[1,2] C,[1,2] D,[1] and E,[3] no report on the structure of soybean saponin has been provided except a few works on the carbohydrate ingredients of the saponin.[4] Recently, we reported the isolation from soybean of three saponins named soyasaponin I, II, and III, in which soyasapogenol B (**1**) was a common triterpenoid aglycone and also elucidated the structure of a prosapogenol (**2a**) of soyasaponin I in conjunction with the photochemical cleavage of the glucuronide linkage.[5] In this communication, we present the evidence corroborating the structures **3**, **5**, and **4** for soyasaponin I, II, and III, respectively.

On acid hydrolysis, soyasaponin I (**3**), $C_{48}H_{78}O_{18}\cdot 2H_2O$,[6] mp 238—240° (MeOH), $[\alpha]_D^{14}$ −8.5° (MeOH), infrared (IR) ν_{max}^{Nujol} cm^{-1}: 3400 (br, OH), 1710 (COOH), afforded soyasapogenol B (**1**), rhamnose, galactose, and an uronic acid, while acid hydrolysis of **3b**, a $NaBH_4$ reduction product of soyasaponin I methyl ester (**3a**) (1740 cm^{-1}: $COOCH_3$, $[\alpha]_D^{27}$ −22.8° (MeOH)), furnished rhamnose, galactose, and glucose along with **1**, thus the uronic acid in **3** being confirmed as glucuronic acid.

Methylation of **3** with CH_3I–NaH–DMSO[7] yielded an undeca-O-methyl derivative (**3c**), $C_{59}H_{100}O_{18}$, mp 211—214° (MeOH–acetone), $[\alpha]_D^{29}$ −8.2° ($CHCl_3$), which possesses no hydroxyl function as revealed by its IR spectrum (1756 cm^{-1}: $COOCH_3$). The proton magnetic resonance (PMR) spectrum ($CDCl_3$) of **3c** shows the presence of three anomeric protons at δ 4.28

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