# Triterpene Glycosides from *Fatsia Japonica* Leaves

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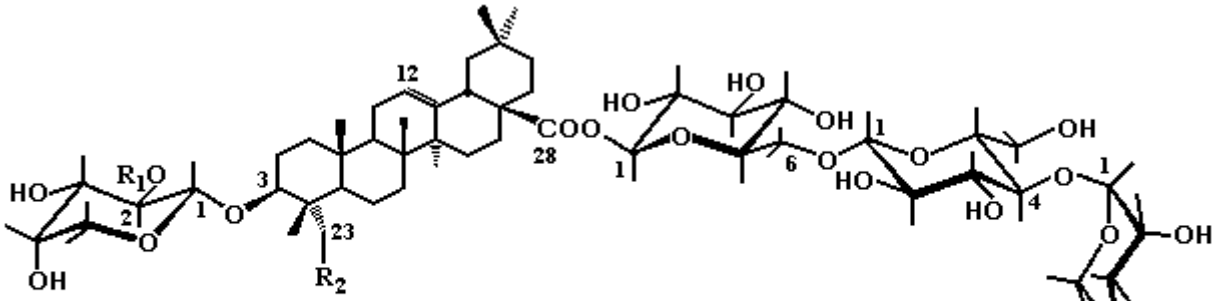
Sixteen triterpenic saponins were isolated from the leaves of *Fatsia japonica*. Three main glycosides appeared to be 28-O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→6)-β-D-glucopyranosyl 3-O-α-L-arabinopyranosyl-hederagenin (1), 3-0-β-D-glucopyranosyl-(1→2)-α-L-arabinopyranosides of oleanolic acid (2) and hederagenin (3). These glycosides have been previously isolated from the mature fruits (Tadashi Aoki, Kazumi Shido, Yutaka Takhashi, Takayuki Suga *Phytochemistry* 1981,20,7) of *Fatsia japonica* and their structures were suggested as 28-O-α-L-rhamnopyranosyl-(1→4)-β-D-glucopyranosyl-(1→4)-β-D-glucopyranosides with unusual for triterpenic glycosides of *Araliaceae* family plants 1→4 linkage between two glucose remidies.

We supposed 1→6 linkage between two glucose units in 28-O-trisaccharide chain instead of 1→4, and confirmed it by the means of both $^{13}$C-NMR and efficient enzyme hydrolises of 28-O-β-D-glucopyranosyl-(1→6)-β-D-glucopyranosyl chain by almond emulsin (EC 3.2.1.21) after removing of terminal L-rhamnose by mild acid treatment.

As it became clear from the results of ammoniac treatment of the whole glycosidic sum and individual saponins, some of them are present in *Fatsia japonica* leaves not only in free form but also as mono- and diacetylated derivatives at C-6 of inner glucose and at C-3 of terminal rhamnose residues.




1) $R_1$ = H, $R_2$ = OH

2) $R_1$ = β-D-Glc$_p$, $R_2$ = H

3) $R_1$ = β-D-Glc$_p$, $R_2$ = OH

The works on triterpene glycosides of other organs of this plant and studying of their immunological activity are in progress.