



PSEUDO-GINSENOSE F11 FROM AMERICAN GINSENG

Ginsenosides are a class of steroid glycosides and triterpene saponins, which are found almost exclusively in the plant genus *Panax* (ginseng), which has a long history of use in traditional medicine that has led to the study of pharmacological effects of ginseng compounds.

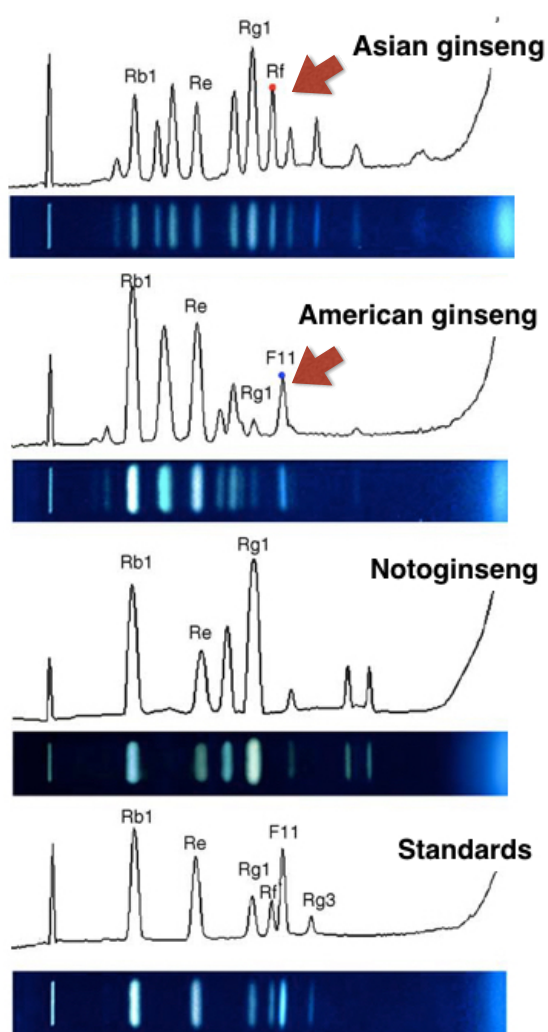
Ginsenosides can be isolated from various parts of the plant, though typically from the roots. *P. notoginseng*, *P. ginseng* (Asian ginseng), *P. quinquefolius* (American ginseng) – the most common species on the market - contain dammarane type ginsenosides as major constituents.

These ginsenosides includes 2 classes:

- > 20(S)-protopanaxadiols (PPD) : Ginsenosides Rb1, Rb2, Rc, Rd, ...
- > 20(S)-protopanaxatriols (PPT) : Ginsenosides Re, Rf, Rg1, Rg2, ...

Beside these major classes of ginsenoside, other minor type of triterpene saponines - like octolillol or oleanane - can be found, depending on the species.

Among them, **Pseudoginsenoside F11** has been identified as specific to **American Ginseng** and quite determinant to distinguish it from other species. Indeed the chemical profiles of *Panax* species are distinct. Comparison of ginsenosides profile allows the authentication of plant species or plant based products: presence/absence/ratio of components can be very specific :



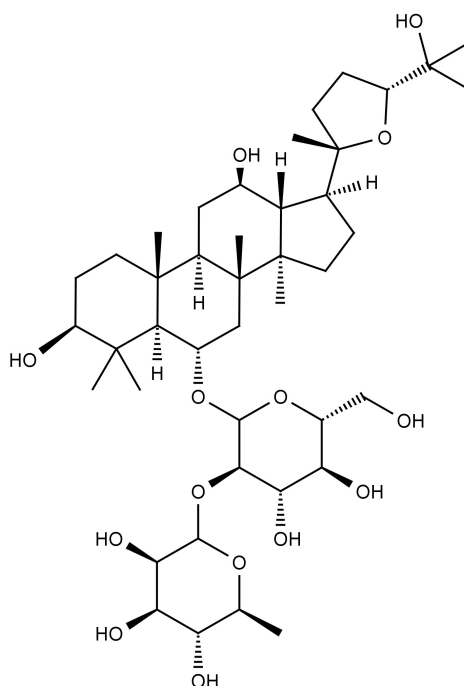
HP-TLC fingerprint
of various *Panax* species

Ginsenoside Rf is characteristic of **Asian ginseng**, while Rc and Rb2 are absent from *Notoginseng*, for instance.

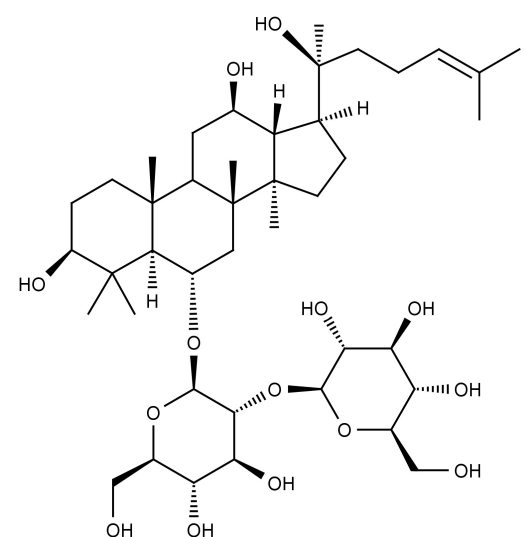
Many studies and reviews have been published to this respect, usually based on HP-TLC or HPLC fingerprints of ginsenosides, like in the beside chart.

From : P.S. Xie and coll. / J. Chromatogr. A 1112 (2006) p. 171-180

See also : C.S. Yuan and coll. / Phytochemistry 72 (2011) p. 689-699



Pseudo-ginsenoside F11
Extrasynthese # 0155 S



Ginsenoside Rf
Extrasynthese # 0107 S

Contact: info@extrasynthese.com

WWW.EXTRASYNTHÈSE.COM