

## Soyasaponin Ab Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Soyasaponin Ab

**Catalog No.:** CFN90773

**Cas No.:** 118194-13-1

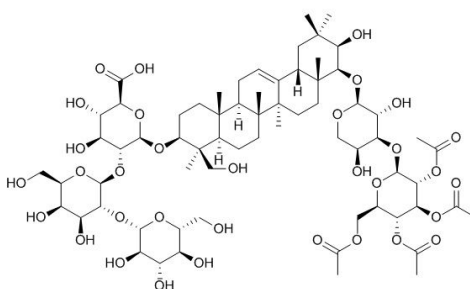
**Purity:** >=95%

**M.F:** C<sub>67</sub>H<sub>104</sub>O<sub>33</sub>

**M.W:** 1437.6

**Physical Description:** Powder

**Synonyms:** Acetylsoyasaponin A1.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Others.

### [ Source ]

The seeds of *Glycine max*.

### [ Biological Activity or Inhibitors ]

Soyasaponin Ab has anti-inflammatory effects, it can inhibit colon shortening, myeloperoxidase activity, the expression of cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (iNOS), and activation of the transcription factor nuclear factor- $\kappa$ B (NF- $\kappa$ B); soyasaponin Ab (1, 2, 5, and 10  $\mu$ M) can inhibit the production of NO (IC<sub>50</sub> = 1.6  $\pm$  0.1  $\mu$ M) and prosta.<sup>[1]</sup>

Soyasaponin Aa and Ab can markedly inhibit adipocyte differentiation and expression of various adipogenic marker genes through the downregulation of the adipogenesis-related transcription factors PPAR $\gamma$  and C/EBP $\alpha$  in 3T3-L1 adipocytes.<sup>[2]</sup>

Soyasaponins Ab and Bb can prevent scopolamine-induced memory impairment in mice without the inhibition of acetylcholinesterase, exhibit memory-enhancing effects. <sup>[3]</sup>

Soyasaponin Ab may represent a viable candidate for effective vaccine adjuvant, TLR4 receptor dependent pathway may be involved in immune stimulatory effects of soyasaponin Ab.<sup>[4]</sup>

## **[ Solvent ]**

Pyridine, Methanol, Ethanol, etc.

## **[ HPLC Method ]<sup>[5]</sup>**

Mobile phase: Acetonitrile- H<sub>2</sub>O=40:60(containing 0.1% trifluo roacetic acid0.1% Trifluo roacetic acid) ;

Flow rate: 1.0 ml/min;

Column temperature:40°C;

The wave length of determination: 205 nm.

## **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

## **[ References ]**

- [1] Lee I A, Park Y J, Joh E H, *et al. J. Agr. Food Chem.*, 2011, 59(24):13165-72.
- [2] Seung Hwan Yang , Eun-Kyung Ahn , Lee J A, *et al. Phytother. Res.*, 2014, 29(2):281-7.
- [3] Hong S W, Yoo D H, Woo J Y, *et al. J.Agr.Food Chem.*, 2014, 62(9):2062-8.
- [4] Sun T, Yan X, Guo W, *et al. Phytomedicine*, 2014, 21(13):1759-66.
- [5] Quan J S, Yin X Z, Shigemitsu K. *Food Science & Technology*, 2007, 32(4):172-4.

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