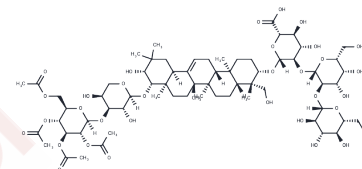


## Soyasaponin Ab

## Chemical Properties

CAS No. :	118194-13-1
Formula:	C <sub>67</sub> H <sub>104</sub> O <sub>33</sub>
Molecular Weight:	1437.52
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	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.
Targets(IC50)	Apoptosis,NOS,NF-κB,COX,PPAR,ROS
In vitro	Soyasaponin Ab inhibited 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-κB (NF-κB). Soyasaponin Ab (1, 2, 5, and 10 μM) inhibited the production of NO (IC <sub>50</sub> = 1.6 ± 0.1 μM) and prostaglandin E <sub>2</sub> (IC <sub>50</sub> = 2.0 ± 0.1 ng/mL), the expression of tumor necrosis factor (TNF)-α (IC <sub>50</sub> = 1.3 ± 0.1 ng/mL), interleukin (IL)-1β (IC <sub>50</sub> = 1.5 ± 0.1 pg/mL), and toll-like receptor (TLR)4, and the phosphorylation of interleukin-1 receptor-associated kinase (IRAK)-1 in LPS-stimulated peritoneal macrophages. Soyasaponin Ab weakly inhibited the phosphorylation of ERK, JNK, and p38. Soyasaponin Ab significantly reduced the binding of Alexa-Fluor-594-conjugated LPS to peritoneal macrophages. Soyasaponin Ab did not affect TLR4 expression or LPS-induced NF-κB activation in TLR4 siRNA-treated peritoneal macrophages (knockdown efficiency of TLR4 > 94%).

## Solubility Information

Solubility	DMSO: 100 mg/mL (69.56 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (2.78 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	0.6956 mL	3.4782 mL	6.9564 mL
5 mM	0.1391 mL	0.6956 mL	1.3913 mL
10 mM	0.0696 mL	0.3478 mL	0.6956 mL
50 mM	0.0139 mL	0.0696 mL	0.1391 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Lee IA, et al. Soyasaponin Ab ameliorates colitis by inhibiting the binding of lipopolysaccharide (LPS) to Toll-like receptor (TLR)4 on macrophages. *J Agric Food Chem.* 2011 Dec 28;59(24):13165-72.

Yang SH, et al. Soyasaponins Aa and Ab exert an anti-obesity effect in 3T3-L1 adipocytes through downregulation of PPAR $\gamma$ . *Phytother Res.* 2015 Feb;29(2):281-7.

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