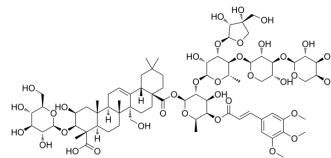


## Polygalasaponin XXXI

Cat. No.:	HY-N2216
CAS No.:	79103-90-5
Molecular Formula:	C <sub>75</sub> H <sub>112</sub> O <sub>36</sub>
Molecular Weight:	1589.67
Target:	Influenza Virus
Pathway:	Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (31.45 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	0.6291 mL	3.1453 mL	6.2906 mL
				5 mM	0.1258 mL	0.6291 mL	1.2581 mL
				10 mM	0.0629 mL	0.3145 mL	0.6291 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.25 mg/mL (0.79 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 1.25 mg/mL (0.79 mM); Suspended solution; Need ultrasonic						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 1.25 mg/mL (0.79 mM); Suspended solution; Need ultrasonic						

### BIOLOGICAL ACTIVITY

Description	Polygalasaponin XXXI (Onjisaponin F) is an effective adjuvant for intranasal administration of influenza Influenza hemagglutinin (HA) vaccine to protect influenza virus infection <sup>[1]</sup> .
In Vitro	Polygalasaponin XXXI (Onjisaponin F) also enhances anti-HA IgA and IgG Ab titers in the nasal wash, whereas Onjisaponins E and G enhances only anti-HA IgA Ab titer significantly. Polygalasaponin XXXI can induce protective immunity against intranasal infection by influenza virus <sup>[1]</sup> . Polygalasaponin XXXI (Onjisaponin F) (1 or 10 μg/mL) also induces ChAT mRNA level in rat basal forebrain cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**In Vivo**

Intranasal vaccination with Polygalasaponin XXXI (Onjisaponin F) inhibits proliferation of mouse adapted influenza virus A/PR/8/34 in bronchoalveolar lavages of infected mice<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**

[1]. T Nagai, et al. Onjisaponins, From the Root of Polygala Tenuifolia Willdenow, as Effective Adjuvants for Nasal Influenza and Diphtheria-Pertussis-Tetanus Vaccines. Vaccine. 2001 Sep 14;19(32):4824-34.

[2]. T Yabe, et al. Induction of NGF Synthesis in Astrocytes by Onjisaponins of Polygala Tenuifolia, Constituents of Kampo (Japanese Herbal) Medicine, Ninjin-yoei-to. Phytomedicine. 2003 Mar;10(2-3):106-14.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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