

## Product Data Sheet

Product Name: Polygalasaponin XXXI

Cat. No.: GC60296

### Chemical Properties

Cas. No. 79103-90-5

SMILES OC[C@](C([C@]1([H])CC2(C)C)=CC[C@]3([H])[C@]4(C[C@@H]5O)C(CC[C@]1(CC2)C(O[C@H](O[C@@H]6C)[C@@H]([C@H]([C@H]6OC)/C=C/C(C=C7OC)=CC(OC)=C7OC)=O)O)[C@H](O[C@H]8C)[C@@H]([C@@H]([C@H]8O[C@H](OC[C@H]9O)[C@@H]([C@H]9O[C@H](OC[C@@H]%10O)[C@@H]([C@H]%10O)O)O)[C@H](OC[C@@](O)%11CO)[C@@H]%11O)O)=O)[C@@]3(CC[C@@]4([H])[C@@](C)([C@H]5O[C@@H]([C@@H]([C@H]%12O)O)O)[C@@H]([C@H]%12O)CO)C(O)=O)C

Formula C<sub>75</sub>H<sub>112</sub>O<sub>36</sub> M.Wt 1589.67

Solubility DMSO : 50 mg/mL (31.45 mM; Need ultrasonic) Storage

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

Polygalasaponin XXXI (Onjisaponin F) is an effective adjuvant for intranasal administration of influenza Influenza hemagglutinin (HA) vaccine to protect influenza virus infection[1].

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[1]. Polygalasaponin XXXI (Onjisaponin F) (1 or 10 µg/mL) also induces ChAT mRNA level in rat basal forebrain cells[2].

Intranasal vaccination with Polygalasaponin XXXI (Onjisaponin F) inhibits proliferation of

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

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mouse adapted influenza virus A/PR/8/34 in bronchoalveolar lavages of infected mice[1].

[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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