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## Product Data Sheet

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Product Name: Verproside

Cat. No.: GC37898

**Chemical Properties**

Cas. No. 50932-20-2

SMILES OC1=C(O)C=CC(C(O[C@@H]2[C@H]3[C@@](O3)(CO)[C@@]([C@@]2([H]))C=CO4)([H])[C@@H]4O[C@]5([H])O[C@H](CO)[C@@H](O)[C@H](O)[C@H]5O)=O)=C1

Formula C<sub>22</sub>H<sub>26</sub>O<sub>13</sub> M.Wt 498.43

Solubility Soluble in DMSO Storage Store at -20°C

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**

Verproside, a catalpol derivative iridoid glycoside isolated from the genus *Pseudolysimachion*, represses TNF- $\alpha$  -induced MUC5AC expression by inhibiting NF- $\kappa$ B activation via the IKK/I $\kappa$ B signaling cascade. Verproside has potent anti-inflammatory, antioxidant, antinociceptive activities and it is a potent anti-asthmatic/COPD drug candidate in vivo[1]. NF- $\kappa$ B TNF- $\alpha$  IKK

Verproside (2.5-20  $\mu$ M; for 2 hours) markedly reduces phosphorylation levels of IKK $\alpha/\beta$ , I $\kappa$ B $\alpha$ , and TAK1 in the 5-20  $\mu$ M range[1]. Western Blot Analysis[1] Cell Line: NCI-H292 cells

Verproside (Intragastrically; 30 mg/kg; 48 hours) significantly reduces the immunoglobulin E (IgE) levels of verproside-treated mice[2]. Animal Model: Specific pathogen-free female BALB/c mice aged 8-10 weeks[2]

[1]. Lee SU, et al. Verproside inhibits TNF- $\alpha$ -induced MUC5AC expression through

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

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suppression of the TNF- $\alpha$ /NF- $\kappa$ B pathway in human airway epithelial cells. Cytokine. 2016 Jan;77:168-75. [2]. Oh SR, et al. Suppressive effect of verproside isolated from *Pseudolysimachion longifolium* on airway inflammation in a mouse model of allergic asthma. Int Immunopharmacol. 2006 Jun;6(6):978-86. Epub 2006 Feb 10.

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