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## Product Data Sheet

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Product Name: Cirsilineol

Cat. No.: GC63591

### Chemical Properties

Cas. No. 41365-32-6

Formula  $C_{18}H_{16}O_7$  M.Wt 344.32

Solubility Storage 4°C, protect from light

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

Cirsilineol, a natural flavone compound, selectively inhibits IFN- $\gamma$ /STAT1/T-bet signaling in intestinal CD4+ T cells. Cirsilineol has potent immunosuppressive and anti-tumor properties. Cirsilineol significantly ameliorates trinitro-benzene sulfonic acid (TNBS)-induced T-cell-mediated experimental colitis in mice[1].

Cirsilineol (0.1-10  $\mu$ M; 96 hours) inhibits single mixed lymphocyte reaction and Concanava A-induced T-cell proliferation in a dose-dependent manner. Cirsilineol (10  $\mu$ M) does not affect T lymphocyte's viability. The inhibition of cirsilineol (10  $\mu$ M) on T-cell proliferation is not due to a cytotoxic activity[1]. Cirsilineol (1-10  $\mu$ M; pretreatment for 3 hours) completely inhibits IFN- $\gamma$ -induced Tyr701 phosphorylation of STAT1 and JAK2 activation[1].

cirsilineol (3, 10, and 30 mg/kg) significantly ameliorates TNBS-induced Th1-mediated colitis through inhibiting IFN- $\gamma$ /STAT1/T-bet signaling in CD4+ T cells.

[1]. Yang Sun, et al. Novel immunomodulatory properties of cirsilineol through selective inhibition of IFN-gamma signaling in a murine model of inflammatory bowel disease. *Biochem Pharmacol.* 2010 Jan 15;79(2):229-38.

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

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