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## Product Data Sheet

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Product Name: Jaceosidin  
 Cat. No.: GN10645

### Chemical Properties

Cas. No. 18085-97-7

Chemical Name 5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-6-methoxychromen-4-one

SMILES COC1=C(C=CC(=C1)C2=CC(=O)C3=C(C(=C(C=C3O2)O)OC)O)O

Formula  $C_{17}H_{14}O_7$  M.Wt 330.29

Solubility  $\geq 33\text{mg/mL}$  in DMSO 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

Jaceosidin is a flavonoid isolated from *Artemisia vestita*, induces apoptosis in cancer cells, activates Bax and down-regulates Mcl-1 and c-FLIP expression[1]. Jaceosidin exhibits anti-cancer[2], anti-inflammatory activities, decreases levels of inflammatory markers, and suppresses COX-2 expression and NF-κB activation[3].

Jaceosidin (30, 50, 75 μM) induces apoptosis in human renal carcinoma Caki cells after treatment for 24 h, shows no obvious effect on normal cells[1]. Jaceosidin (75 μM) reduces MMP levels and causes cytochrome c release into the cytoplasm through Bax activation[1]. Jaceosidin-mediated apoptosis is involved in downregulation of Mcl-1, c-FLIP expression, which is via inhibition of NF-κB and/or Sp1 transcriptional activity[1]. Jaceosidin shows cytostatic activity to HES and HESC cells with IC50s of 52.68 and 55.10 μM, and is less cytotoxic on Hec1 A and KLE (IC50, 70.54, 147.14 μM, respectively), after treatment for 48 h[2].

Jaceosidin (10 and 20 mg/kg, p.o., once a day for 3 days) blocks carrageenan-induced

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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increase in leukocyte number and protein levels in air pouch exudates in mice[3].Jaceosidin (10, 20 mg/kg, p.o.) suppresses COX-2 expression and NF- $\kappa$ B activation in mice[3].Jaceosidin (20 mg/kg, p.o. for 2 hours) reduces hind paw edema volume in rats[3].

### References:

- [1]. Woo SM, et al. Jaceosidin induces apoptosis through Bax activation and down-regulation of Mcl-1 and c-FLIP expression in human renal carcinoma Caki cells. Chem Biol Interact. 2016 Dec 25;260:168-175.
- [2]. Lee JG, et al. Jaceosidin, isolated from dietary mugwort (*Artemisia princeps*), induces G2/M cell cycle arrest by inactivating cdc25C-cdc2 via ATM-Chk1/2 activation. Food Chem Toxicol. 2013 May;55:214-21.
- [3]. Min SW, et al. Inhibitory effect of eupatilin and jaceosidin isolated from *Artemisia princeps* on carrageenan-induced inflammation in mice. J Ethnopharmacol. 2009 Sep 25;125(3):497-500.

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