Product Data Sheet

Chemical Properties

Product Name: Gedunin
Cas No.: 2753-30-2
M.Wt: 482.57
Formula: C28H34O7

Chemical Name: (1R,3aS,4aR,4bR,5S,6aS,10aR,10bS,12aS)-1-(furan-3-yl)-4b,7,7,10a,12a-pentamethyl-3,8-dioxo-1,3,3a,4b,5,6,6a,7,8,10a,10b,11,12,12a-te tradecahydonaphtho[2,1-f]oxireno[2,3-d]isochromen-5-yl acetate

Canonical SMILES: O=C1O[C@H](C2=COC=C2)[C@@]3(C)[C@]4([C@@]5(C)[C@@H](CC3)[C@@]6)[C@H](C(C)(C)=O)C[C@@H]5OC(C)=O[C@@H]41

Solubility: Soluble in DMSO > 10 mM
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.

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

Biological Activity

Targets: Proteases
Pathways: HSP

Description:
Gedunin, a naturally occurring Hsp90 inhibitor, is tetranortriterpenoid isolated from the Indian neem tree (Azadirachta indica).
Hsp90 (heat shock protein 90) is a chaperone protein stabilizes proteins against heat stress, and aids in protein degradation. Originally, this protein was isolated by extracting proteins from cells stressed by heating, dehydrating or by other means. It also stabilizes a number of proteins required for tumor growth, thereby Hsp90 inhibitors are investigated as anti-cancer drugs. In vitro, Gedunin induces degradation of Hsp90-dependent client protein and displays anti-proliferative activity in SKBr3, CaCo-2 and MCF-7 cancer cell lines with IC50 of 3.22, 16.8 and 8.84 μM respectively.1. Gedunin treatment was shown to exhibit anti-malarial activity against P. falciparum in parasite development and [3H]-hypoxanthine uptake assays with IC50 values of 0.14 and 3.1 μM respectively 2. Using mouse model, gedunin was demonstrated to present remarkable anti-inflammatory and anti-nociceptive effects on zymosan-induced inflamed knee joints, modulation of different cell populations3.

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.
NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.