18β-Glycyrrhetinic Acid

G4597

CAS No. 471-53-4

Product ID

Chemical Name (3β,20β)-3-Hydroxy-11-oxoolean-12-en-29-oic acid

Synonym Enoxolone, Uralenic acid, Arthrodont, Biosone

Formula C_{30}H_{46}O_{4}

Formula Wt. 470.68

Melting Point 296°C

Purity ≥98%

Solubility Soluble in ethanol, chloroform, dioxane, pyridine or acetic acid.

Store Temp Ambient

Ship Temp Ambient

Description 18β-Glycyrrhetinic Acid (enoxolone) is a triterpene glycoside found in Glycyrrhiza that exhibits anti-hyperlipidemic, anti-obesity, anti-inflammatory, anticancer, and anti-metastatic activities. Enoxolone is commercially used as a flavorant. Enoxolone inhibits 15-hydroxyprostaglandin dehydrogenase, altering the metabolism of prostaglandins E2 (PGE2) and F2 (PGF2). Enoxolone also modulates ion channel activity, inhibiting human ether-related-a-go-go (hERG) K+ channels and Kv1.3 K+ channels. In vitro, enoxolone prevents production of IL-2 and activation of T cells. In other cellular models, enoxolone decreases cellular invasion, expression of matrix metalloproteinase 9 (MMP9) and VEGF, and activity of NF-κB. This compound also induces apoptosis in non-small cell lung cancer (NSCLC) cells, decreasing expression of Bcl-2, Bcl-xl, cyclin D1, and cyclin E, increasing activation of caspases and PARP, and downregulating phosphorylation of JNK and PKC. In animal models, enoxolone inhibits anandamide-induced adipocyte differentiation, suppresses expression of fatty acid synthase, and decreases plasma lipid levels, fat weight, and body weight.

References


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