

Ginsenoside Rf

Catalog No: tcsc3841



Available Sizes

Size: 5mg

Size: 10mg



Specifications

CAS No:

52286-58-5

Formula:

$C_{42}H_{72}O_{14}$

Pathway:

Membrane Transporter/Ion Channel

Target:

Calcium Channel

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

Panaxoside Rf

Observed Molecular Weight:

801.01

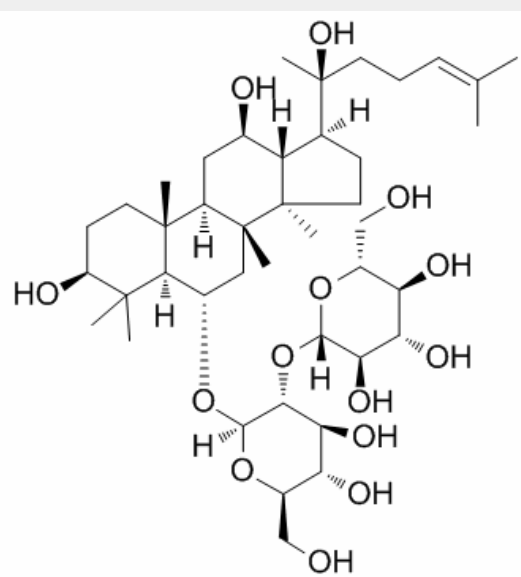
Product Description

Ginsenoside Rf is a trace component of ginseng root. Ginsenoside Rf inhibits **N-type Ca^{2+} channel**.

IC50 & Target: N-type Ca²⁺ channel^[1]

In Vitro: Ginsenoside Rf is a saponin, which is present in only trace amounts within ginseng. At saturating concentrations, Ginsenoside Rf rapidly and reversibly inhibits N-type, and other high-threshold, Ca²⁺ channels in rat sensory neurons to the same degree as a maximal dose of opioids. The effect is dose-dependent (half-maximal inhibition: 40 μM) and it is virtually eliminated by pretreatment of the neurons with pertussis toxin, an inhibitor of G(o) and Gi GTP-binding proteins. Ginsenoside Rf also inhibits Ca²⁺ channels in the hybrid F-11 cell line^[1].

In Vivo: Since inhibition of Ca²⁺ channels in sensory neurons contributes to antinociception by opioids, analgesic actions of Ginsenoside Rf are tested. Dose-dependent antinociception is found by systemic administration of Ginsenoside Rf in mice using two separate assays of tonic pain: in the acetic acid abdominal constriction test, the ED₅₀ is 56±9 mg/kg, a concentration similar to those reported for aspirin and acetaminophen in the same assay; in the tonic phase of the biphasic formalin test, the ED₅₀ is 129±32 mg/kg^[2].



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