Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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**.

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IC50 & Target: N-type Ca^{2+} 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, Ca^{2+} 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 Ca^{2+} channels in the hybrid F-11 cell line[1].

In Vivo: Since inhibition of Ca^{2+} 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 ED_{50} 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 ED_{50} is 129±32 mg/kg[2].