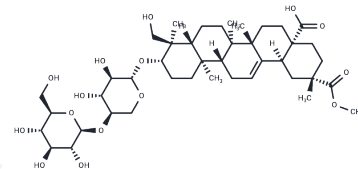


Esculentoside C

Chemical Properties

CAS No. : 65931-92-2
Formula: C42H66O15
Molecular Weight: 810.975
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Esculentoside C exerts proinflammatory effects synergistically, it can induce inflammatory stimulation.
In vitro	METHODS AND RESULTS: Petroleum ether (PE), CH₂Cl₂, n-BuOH, and water fractions were isolated from 70% ethanol extract of <i>P. americana</i>. The n-BuOH fraction was dissolved in 50% ethanol and precipitated by adding ethyl ether. The resultant supernatants and precipitates were referred to as SUPs and SEDs fractions, respectively. SUPs fraction was separated by column chromatography into four main stimulating esculentosides that were identified by HR-ESI/MS and NMR as Esculentoside A(EsA), Esculentoside B(EsB), Esculentoside C(EsC), and Esculentoside F(EsF). The irritating effects of esculentosides on rabbit conjunctivae (500 µg/eye) was observed by pathological examination and those on macrophages (5, 25, 50 and 100 µg/mL) were evaluated by detecting changes of NO, TNF-α, and IL-1β levels. n-BuOH, SUP fractions, and EsC induced severe conjunctival edema. The four esculentosides induced dose-dependent releases of proinflammatory mediators NO, TNF-α, and IL-1β from macrophages, and releasing amounts peaked after 2 h of treatment. EsC and EsF induced macrophages to release mediators most significantly. EsC (50 µg/mL) functioned more effectively than EsF did, and similarly n-BuOH and SUPs fractions functioned more effectively than the esculentoside mixture. CONCLUSIONS: Thus, the four esculentosides exerted proinflammatory effects synergistically. All extracted esculentosides, especially EsC, induced inflammatory stimulation. <i>Phytolacca americana</i>-induced irritation of the gastrointestinal tract may be associated with esculentosides such as EsC.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2331 mL	6.1654 mL	12.3308 mL
5 mM	0.2466 mL	1.2331 mL	2.4662 mL
10 mM	0.1233 mL	0.6165 mL	1.2331 mL
50 mM	0.0247 mL	0.1233 mL	0.2466 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Rabbit conjunctivae edema and release of NO, TNF- α , and IL-1 β from macrophages induced by fractions and esculentosides isolated from *Phytolacca americana*. Pharm. Biol.,2016;54(1):98-104.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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