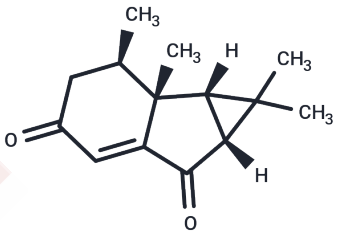
Data Sheet (Cat.No.TN6453)

TargetMol

Nardoaristolone B

Chemical Properties



CAS No. : 1422517-82-5

Formula: C14H18O2

Molecular Weight: 218.29

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Nardoaristolone B, a nor-sesquiterpenoid with an unusual fused ring system and having protective effects on the injury of neonatal rat cardiomyocytes. The novel mosquito-repellentsynthetic hydrindanesbased on noreremophilanes and nardoaristolone B which show increasedactivity against adult females of Aedes aegypti.
In vitro	Nardostachys jatamansi contains various types of sesquiterpenoids that may play an important role in the potency of plant's anti-inflammatory effects, depending on their structure. METHODS AND RESULTS: In this study, five new sesquiterpenoids, namely kanshone L (1), kanshone M (2), 7-methoxydesoxo-narchinol (3), kanshone N (4), and nardosdaucanol (5), were isolated along with four known terpenoids (kanshone D (6), nardosinanone G (7), narchinol A (8), and Nardoaristolone B (9)) from the rhizomes and roots of Nardostachys jatamansi. Their structures were determined by analyzing 1D and 2D NMR and MS data. Among the nine sesquiterpenoids, compounds 3, 4, and 8 were shown to possess dose-dependent inhibitory effects against lipopolysaccharide (LPS)-stimulated nitric oxide (NO) production in BV2 microglial cells. Furthermore, compounds 3, 4, and 8 exhibited anti-neuroinflammatory effects by inhibiting the production of pro-inflammatory mediators, including prostaglandin E? (PGE?), inducible nitric oxide synthase (iNOS), and cyclooxygenase-2 (COX-2) proteins, as well as pro-inflammatory cytokines, such as interleukin (IL)-1β, IL-12 and tumor necrosis factor-α (TNF-α), in LPS-stimulated BV2 microglial cells. Moreover, these compounds were shown to inhibit the activation of the NF-κB signaling pathway in LPS-stimulated BV2 microglial cells by suppressing the phosphorylation of IκB-α and blocking NF-κB translocation. CONCLUSIONS: In conclusion, five new and four known sesquiterpenoids were isolated from Nardostachys jatamansi, and compounds 3, 4, and 8 exhibited anti-neuroinflammatory effects in LPS-stimulated BV2 microglial cells through inhibiting of NF-κB signaling pathway.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.5811 mL	22.9053 mL	45.8106 mL
5 mM	0.9162 mL	4.5811 mL	9.1621 mL
10 mM	0.4581 mL	2.2905 mL	4.5811 mL
50 mM	0.0916 mL	0.4581 mL	0.9162 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Isolation of Novel Sesquiterpeniods and Anti-neuroinflammatory Metabolites from Nardostachys jatamansi. Molecules. 2018 Sep 17;23(9). pii: E2367.