Data Sheet (Cat.No.TN2116)

TargetMol

Pteropodine

Chemical Properties

CAS No. : 5629-60-7

Formula: C21H24N2O4

Molecular Weight: 368.43

Storage: Keep away from moisture,
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	Pteropodine (Uncarine C) is a monoterpenoid indole alkaloid belonging to the class of natural products with a five-ring structure. It acts as a positive allosteric modulator of M1 muscarinic acetylcholine receptors and 5-HT2 serotonin receptors, concentration-dependently enhancing receptor signaling responses induced by agonists. Pteropodine exhibits immunomodulatory, anti-inflammatory, and neuroprotective activities and is commonly used in research on natural medicines and bioactive plant compounds.
Targets(IC50)	5-HT Receptor,Cholinesterase (ChE)
In vitro	Pteropodine and isoPteropodine (1-30 μM) do not induce membrane currents on their own, but they can concentration-dependently and reversibly enhance the current responses induced by acetylcholine and 5-HT, with the maximum effect observed at 30 μM [1]. Pteropodine (30 μM) increased the acetylcholine-induced current response 2.7-fold, with an EC50 of 9.52 μM. Pteropodine (30 μM) increased the 5-HT-induced current response 2.4-fold, with an EC50 of 13.5 μM. Pteropodine (10 μM) and isoPteropodine (10 μM) significantly reduced the EC50 values for acetylcholine and 5-HT, but did not affect the maximum current responses induced by either agonist [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7142 mL	13.5711 mL	27.1422 mL
5 mM	0.5428 mL	2.7142 mL	5.4284 mL
10 mM	0.2714 mL	1.3571 mL	2.7142 mL
50 mM	0.0543 mL	0.2714 mL	0.5428 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

Kang TH, et al. Pteropodine and isopteropodine positively modulate the function of rat muscarinic M(1) and 5-HT (2) receptors expressed in Xenopus oocyte. Eur J Pharmacol. 2002 May 24;444(1-2):39-45.