

Product Data Sheet

Product Name: Ginkgotoxin

Cat. No.: GC48941

Chemical Properties

Cas. No. 1464-33-1

SMILES OC1=C(COC)C(CO)=CN=C1C

Formula C₉H₁₃NO₃

M.Wt 183.2

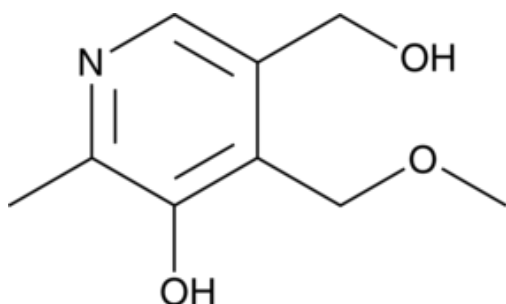
Solubility DMF: 1 mg/ml, DMSO: 5 mg/ml, Ethanol: 1 mg/ml, PBS (pH 7.2): 10 mg/ml

Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Ginkgotoxin is a pyridoxine antimetabolite that has been found in *G. biloba*.^{1,2} It inhibits pyridoxal kinase ($K_i = 3 \mu\text{M}$), the enzyme that converts pyridoxine into its active form, pyridoxal 5'-phosphate.³ Ginkgotoxin (200-1,000 μM) induces seizure-like behavior in zebrafish larvae, an effect that can be reversed by PLP or GABA.⁴

1. Wada, K., Ishigaki, S., Ueda, K., et al. An antivitamin B6, 4'-methoxypyridoxine, from the seed of *Ginkgo biloba* L. *Chem. Pharm. Bull.* 33(8):3555-3557 (1985) 2. Arenz, A., Klein, M.K., Fiehe, K., et al. Occurrence of neurotoxic 4'-O-methylpyridoxine in *Ginkgo biloba* leaves, *Ginkgo* medications and Japanese *Ginkgo* food. *Planta Med.* 62(6):548-551 (1996) 3. Gandhi, A.K., Desai, J.V., Ghatge, M.S., et

Caution: Product has not been fully validated for medical applications. For research use only.

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al. Crystal structures of human pyridoxal kinase in complex with the neurotoxins, ginkgotoxin and theophylline: Insights into pyridoxal kinase inhibition PLoS One 7(7):e40954 (2012) 4. Lee, G.-H., Sung, S.-Y., Chang, W.-N., et al. Zebrafish larvae exposed to ginkgotoxin exhibit seizure-like behavior that is relieved by pyridoxal-5'-phosphate, GABA and anti-epileptic drugs Dis. Model. Mech. 5(6):785-795 (2012)

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