
Product Data Sheet

Product Name: Glabranine

Cat. No.: GC36143

Chemical Properties

Cas. No. 41983-91-9

SMILES O=C1C2=C(O)C=C(O)C(C/C=C(C)\C)=C2O[C@H](C3=CC=CC=C3)C1Formula C₂₀H₂₀O₄

M.Wt 324.37

Solubility DMSO : 100 mg/mL (308.29 mM; Need ultrasonic)

Storage Store at -20°C, protect from light

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 **Protocol****Cell experiment [1]:**

Cell lines LLC-MK2 cells (Rhesus monkey kidney epithelial cell line)

Preparation Method LLC-MK2 cells were treated with Glabranine at concentrations ranging from 6μM to 50μM for 24 hours.

Reaction Conditions 6μM to 50μM; 24h.

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

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Applications

Glabranine showed no cytotoxicity to LLC-MK2 cells at concentrations up to 50 μ M and did not affect cell proliferation. In dengue virus (serotype 2)-infected cells, Glabranine significantly inhibited viral replication, reducing dengue virus by 53.9% and 76.9% at concentrations of 12 μ M and 25 μ M, respectively.

References:

[1] Sánchez I, Gómez-Garibay F, Taboada J, et al. Antiviral effect of flavonoids on the dengue virus. *Phytother Res.* 2000 Mar;14(2):89-92.

Background

Glabranine is a flavonoid isolated from *Tephrosia* species. Glabranine inhibits the dengue virus by interacting with the soluble extracellular domain of the DENV2 E protein. Glabranine can be used in research related to dengue virus inhibition, as well as for Glabranine antibacterial and antioxidant activities^[1].

In vitro, Glabranine (6–50 μ M) was used to treat LLC-MK2 cells infected with dengue virus (serotype 2) for 24 hours. Glabranine exhibited no cytotoxicity to the cells and significantly inhibited dengue virus replication^[2].

References:

[1] Ismail NA, Jusoh SA. Molecular Docking and Molecular Dynamics Simulation Studies to Predict Flavonoid Binding on the Surface of DENV2 E Protein. *Interdiscip Sci.* 2017 Dec;9(4):499-511.

[2] Sánchez I, Gómez-Garibay F, Taboada J, et al. Antiviral effect of flavonoids on the dengue virus. *Phytother Res.* 2000 Mar;14(2):89-92.

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