

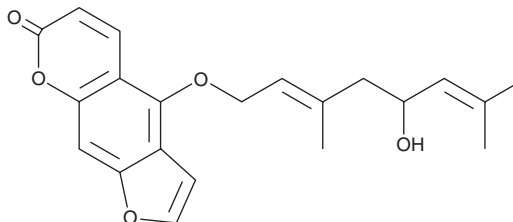
PRODUCT INFORMATION



Notopterol

Item No. 39268

CAS Registry No.: 88206-46-6
Formal Name: 4-[[[(2E)-5-hydroxy-3,7-dimethyl-2,6-octadien-1-yl]oxy]-7H-furo[3,2-g][1]benzopyran-7-one
MF: C₂₁H₂₂O₅
FW: 354.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Hansenia weberbaueriana*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Notopterol is supplied as a solid. A stock solution may be made by dissolving the notopterol in the solvent of choice, which should be purged with an inert gas. Notopterol is soluble in the organic solvent methanol.

Description

Notopterol is a furanocoumarin originally isolated from *H. weberbaueriana* that has diverse biological activities.¹⁻³ It is an inhibitor of JAK2 and JAK3 (IC₅₀s = 9.51 and 25.2 μM, respectively) and is selective for JAK2 and JAK3 over tyrosine kinase 2 (TYK2) and JAK1 (IC₅₀s = >667 and >2,000 μM, respectively).¹ Notopterol (40 and 60 μM) induces apoptosis and mitochondrial membrane depolarization in HL-60 leukemia cells.² It induces cell cycle arrest at the G₀/G₁ phase in HL-60 cells when used at concentrations of 10, 20, and 40 μM. Notopterol (100 mg/kg) decreases acetic acid-induced writhing and vascular permeability in mice.³ It increases the duration of pentobarbital-induced sleep in mice when administered at doses of 10 or 30 mg/kg. *In vivo*, notopterol (20 mg/kg per day) reduces joint swelling, inhibits collagen-induced decreases in talus bone volume, and reduces the number of meniscus and talus osteoclasts in a mouse model of collagen-induced arthritis.¹

References

1. Wang, Q., Zhou, X., Yang, L., *et al.* The natural compound notopterol binds and targets JAK2/3 to ameliorate inflammation and arthritis. *Cell Rep.* **32**(11), 108158 (2020).
2. Huang, Q., Wang, L., Ran, Q., *et al.* Notopterol-induced apoptosis and differentiation in human acute myeloid leukemia HL-60 cells. *Drug Des. Devel. Ther.* **13**, 1927-1940 (2019).
3. Okuyama, E., Nishimura, S., Ohmori, S., *et al.* Analgesic component of *Notopterygium incisum* Ting. *Chem. Pharm. Bull. (Tokyo)* **41**(5), 926-929 (1993).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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