

PRODUCT INFORMATION

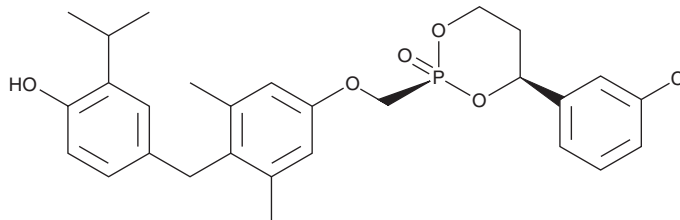


MB-07811

Item No. 30670

CAS Registry No.: 852948-13-1
Formal Name: 4-[[4-[[[(2R,4S)-4-(3-chlorophenyl)-2-oxido-1,3,2-dioxaphosphorinan-2-yl]methoxy]-2,6-dimethylphenyl]methyl]-2-(1-methylethyl)-phenol

Synonym: VK-2809
MF: C₂₈H₃₂ClO₅P
FW: 515.0
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

MB-07811 is supplied as a solid. A stock solution may be made by dissolving the MB-07811 in the solvent of choice, which should be purged with an inert gas. MB-07811 is soluble in organic solvents such as acetonitrile and DMSO.

Description

MB-07811 is a liver-targeted prodrug form of the thyroid hormone receptor β (TR β) agonist MB-07344.¹ It is stable in extrahepatic tissues and converted to MB-07344 in the liver. MB-07811 binds to TR α 1 and TR β 1 with K_i values of 12.5 and 14.6 μ M, respectively. Oral administration of MB-07811 reduces plasma cholesterol levels (ED₅₀ = 0.48 mg/kg) in a cholesterol-fed rat (CFR) model. It also reduces hepatic steatosis, as well as plasma levels of cholesterol, in Zucker diabetic fatty rats in a model of non-alcoholic fatty liver disease (NAFLD) when administered at a dose of 5 mg/kg per day.² MB-07811 (10 mg/kg) reverses hepatic steatosis, reducing total hepatic lipids without decreasing body weight, in a mouse model of diet-induced obesity.

References

1. Boyer, S.H., Jiang, H., Jacintho, J.D., *et al.* Synthesis and biological evaluation of a series of liver-selective phosphonic acid thyroid hormone receptor agonists and their prodrugs. *J. Med. Chem.* **51(22)**, 7075-7093 (2008).
2. Cable, E.E., Finn, P.D., Stebbins, J.W., *et al.* Reduction of hepatic steatosis in rats and mice after treatment with a liver-targeted thyroid hormone receptor agonist. *Hepatology* **49(2)**, 407-417 (2009).

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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