

PRODUCT INFORMATION



BMS 649

Item No. 30037

CAS Registry No.: 146670-40-8

Formal Name: 4-[2-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)-1,3-dioxolan-2-yl]-benzoic acid

Synonyms: BMS 188649, SR 11237, UVI 2108

MF: $C_{24}H_{28}O_4$

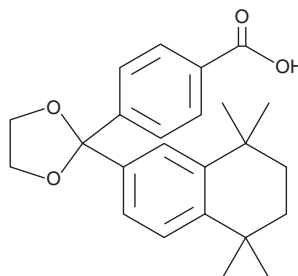
FW: 380.5

Purity: $\geq 98\%$

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

BMS 649 is supplied as a solid. A stock solution may be made by dissolving the BMS 649 in the solvent of choice, which should be purged with an inert gas. BMS 649 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

BMS 649 is a synthetic retinoid and retinoid X receptor (RXR) agonist.¹ It binds to RXR α homodimers and selectively induces transactivation in CV-1 cells expressing RXR α over CV-1 cells expressing retinoic acid receptor α (RAR α), RAR β , or RAR α and RXR α when used at a concentration of 0.1 μM . BMS 649 (1 μM), in combination with the RAR α agonist BMS 753, induces morphological differentiation of F9 embryonal carcinoma cells.² It prevents differentiation induced by phorbol-12-myristate-13-acetate (PMA; Item No. 10008014) of THP-1 monocytes into macrophages.³ BMS 649 (25 mg/kg) reduces body weight and bone lengths when administered to newborn rats.⁴ It induces malformations in *Xenopus* embryos.⁵

References

1. Lehmann, J.M., Jong, L., Fanjul, A., *et al.* Retinoids selective for retinoid X receptor response pathways. *Science* **258**(5090), 1944-1946 (1992).
2. Taneja, R., Roy, B., Plassat, J.L., *et al.* Cell-type and promoter-context dependent retinoic acid receptor (RAR) redundancies for RAR β 2 and *Hoxa-1* activation in F9 and P19 cells can be artefactually generated by gene knockouts. *Proc. Natl. Acad. Sci. USA* **93**(12), 6197-6202 (1996).
3. Zhou, L., Shen, L.-H., Hu, L.-H., *et al.* Retinoid X receptor agonists inhibit phorbol-12-myristate-13-acetate (PMA)-induced differentiation of monocytic THP-1 cells into macrophages. *Mol. Cell. Biochem.* **335**(1-2), 283-239 (2010).
4. Dupuis, H., Pest, M.A., Hadzic, E., *et al.* Exposure to the RXR Agonist SR11237 in Early Life Causes Disturbed Skeletal Morphogenesis in a Rat Model. *Int. J. Mol. Sci.* **20**(20), 5198 (2019).
5. Minucci, S., Saint-Jeannet, J.P., Toyama, R., *et al.* Retinoid X receptor-selective ligands produce malformations in *Xenopus* embryos. *Proc. Natl. Acad. Sci. USA* **93**(5), 1803-1807 (1996).

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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