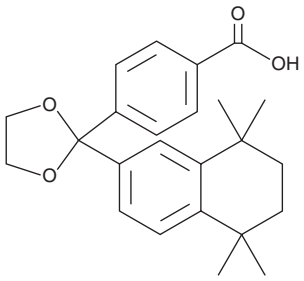
PRODUCT INFORMATION

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:	≥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 RXRα homodimers and selectively induces transactivation in CV-1 cells expressing RXRα over CV-1 cells expressing retinoic acid receptor α (RARα), RARβ, or RARα and RXRα when used at a concentration of 0.1 µM. BMS 649 (1 µM), in combination with the RARα 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 *RARβ2* 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).

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