

PRODUCT INFORMATION



Pixantrone-d₈ (maleate)

Item No. 33292

Formal Name: 6,9-bis((2-aminoethyl-1,1,2,2-d₄)amino)benzo[g]isoquinoline-5,10-dione, dimaleate

MF: C₁₇H₁₁D₈N₅O₂ • 2C₄H₄O₄

FW: 565.6

Chemical Purity: ≥95% (Pixantrone)

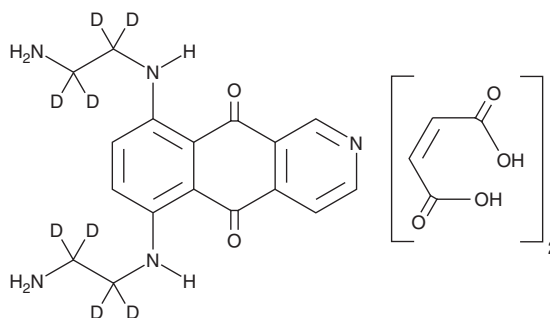
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀

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

Pixantrone-d₈ (maleate) is intended for use as an internal standard for the quantification of pixantrone (Item No. 20055) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Pixantrone-d₈ (maleate) is supplied as a solid. A stock solution may be made by dissolving the pixantrone-d₈ (maleate) in the solvent of choice, which should be purged with an inert gas. Pixantrone-d₈ (maleate) is soluble in methanol and DMSO.

Description

Pixantrone is a DNA topoisomerase II inhibitor.¹ It induces SV40 DNA cleavage in the presence of mouse topoisomerase II and induces DNA single-strand breaks in NCI H187 cells in a concentration-dependent manner. Pixantrone is cytotoxic to L1210 leukemia cells as well as doxorubicin-sensitive and -resistant LoVo colon adenocarcinoma cells (IC₅₀ = 0.01, 0.24, and 7.2 µg/ml, respectively).² It decreases disease severity in a rat model of myasthenia gravis induced by immunization with the *T. californica* acetylcholine receptor (AChR) when administered at a dose of 8.12 mg/kg once per week for six weeks.³ Formulations containing pixantrone have been used in the treatment of non-Hodgkin B cell lymphoma.

References

1. De Isabella, P., Palumbo, M., Sissi, C., *et al.* Topoisomerase II DNA cleavage stimulation, DNA binding activity, cytotoxicity, and physico-chemical properties of 2-aza- and 2-aza-oxide-anthracenedione derivatives. *Mol. Pharmacol.* **48**(1), 30-38 (1995).
2. Krapcho, A.P., Petry, M.E., Getahun, Z., *et al.* 6,9-Bis[(aminoalkyl)amino]benzo[g]isoquinoline-5,10-diones. A novel class of chromophore-modified antitumor anthracene-9,10-diones: Synthesis and antitumor evaluations. *J. Med. Chem.* **37**(6), 828-837 (1994).
3. Marolda, R., Ruocco, C., Cordiglieri, C., *et al.* Differential targeting of immune-cells by Pixantrone in experimental myasthenia gravis. *J. Neuroimmunol.* **258**(1-2), (2013).

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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