

# PRODUCT INFORMATION



## Becatecarin

Item No. 15576

**CAS Registry No.:** 119673-08-4  
**Formal Name:** 1,11-dichloro-6-[2-(diethylamino)ethyl]-12,13-dihydro-12-(4-O-methyl-b-D-glucopyranosyl)-5H-indolo[2,3-a]pyrrolo[3,4-c]carbazole-5,7(6H)-dione  
**Synonyms:** BMS 181176, BMY 27557, NSC 655649, XL 119

**MF:** C<sub>33</sub>H<sub>34</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>7</sub>

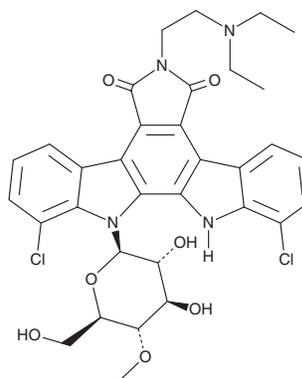
**FW:** 669.6

**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

Becatecarin is supplied as a solid. A stock solution may be made by dissolving the becatecarin in the solvent of choice, which should be purged with an inert gas. Becatecarin is soluble in DMSO. Becatecarin is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Becatecarin is a water-soluble, diethylaminoethyl analog of the antineoplastic antibiotic rebeccamycin.<sup>1</sup> It intercalates into DNA, stabilizing the DNA-topoisomerase complex.<sup>2</sup> This results in the potent catalytic inhibition of both topoisomerases I and II, initiating DNA cleavage and apoptosis.<sup>2</sup> Becatecarin, alone or in combination with other compounds, has anti-cancer as well as myelosuppressive effects *in vivo*.<sup>3,4</sup> It is also a transport substrate of the ATP-binding cassette (ABC) transporter ABCG2.<sup>5</sup>

### References

1. Kaneko, T., Wong, H., Utzig, J., *et al.* Water soluble derivatives of rebeccamycin. *J. Antibot. (Tokyo)* **43(1)**, 125-127 (1990).
2. Long, B.H., Rose, W.C., Vyas, D.M., *et al.* Discovery of antitumor indolocarbazoles: Rebeccamycin, NSC 655649, and fluorindolocarbazoles. *Curr. Med. Chem. Anticancer Agents* **2(2)**, 255-266 (2002).
3. Ricart, A.D., Hammond, L.A., Kuhn, J.G., *et al.* Phase I and pharmacokinetic study of sequences of the rebeccamycin analogue NSC 655649 and cisplatin in patients with advanced solid tumors. *Clin. Cancer Res.* **11(24 Pt 1)**, 8728-8736 (2005).
4. Schwandt, A., Mekhail, T., Halmos, B., *et al.* Brief report: Phase II trial of rebeccamycin analogue, a dual topoisomerase I and II inhibitor, in relapsed "sensitive" small cell lung cancer. *J. Thorac. Oncol.* **7(1)**, 751-754 (2012).
5. Robey, R.W., Obrzut, T., Shukla, S., *et al.* Becatecarin (rebeccamycin analog, NSC 655649) is a transport substrate and induces expression of the ATP-binding cassette transporter, ABCG2, in lung carcinoma cells. *Cancer Chemother. Pharmacol.* **64(3)**, 575-583 (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.

#### WARRANTY AND LIMITATION OF REMEDY

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