



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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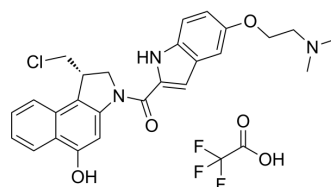
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## Duocarmycin DM

<b>Cat. No.:</b>	HY-130978
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>27</sub> ClF <sub>3</sub> N <sub>3</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	577.98
<b>Target:</b>	DNA Alkylator/Crosslinker; ADC Cytotoxin
<b>Pathway:</b>	Cell Cycle/DNA Damage; Antibody-drug Conjugate/ADC Related
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Duocarmycin DM, a DNA minor-groove alkylator, is an antibody agent conjugates (ADCs) toxin. Duocarmycin DM is based on its characteristic curved indole structure and a spirocyclopropylcyclohexadienone electrophile to act anticancer activity <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Daunorubicins/Doxorubicins
<b>In Vitro</b>	<p>The Duocarmycins and CC-1065 are members of a class of DNA minor groove, AT-sequence selective, and adenine-N3 alkylating agents, isolated from <i>Streptomyces</i> sp. that exhibit extremely potent cytotoxicity against the growth of cancer cells grown in culture<sup>[2]</sup>.</p> <p>Duocarmycin DM shows cytotoxicity to several human cancer cells, with IC<sub>50</sub> of 22, 13.8, 3.87, 15.4, and 7.31 pM for HT-29, CL1-5, Caski, EJ, and LS174T, respectively<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. Patil PC, et al. A Short Review on the Synthetic Strategies of Duocarmycin Analogs that are Powerful DNA Alkylating Agents. *Anticancer Agents Med Chem.* 2015;15(5):616-630.
- [2]. Koch MF, et al. Structural, Biochemical, and Computational Studies Reveal the Mechanism of Selective Aldehyde Dehydrogenase 1A1 Inhibition by Cytotoxic Duocarmycin Analogues. *Angew Chem Int Ed Engl.* 2015 Nov 9;54(46):13550-4.
- [3]. Chen KC, et al. Selective cancer therapy by extracellular activation of a highly potent glycosidic duocarmycin analogue. *Mol Pharm.* 2013;10(5):1773-1782.
- [4]. Tietze LF, Krewer B, von Hof JM, Frauendorf H, Schuberth I. Determination of the biological activity and structure activity relationships of drugs based on the highly cytotoxic duocarmycins and CC-1065. *Toxins (Basel).* 2009;1(2):134-150.
- [5]. Tietze LF, Schuster HJ, Schmuck K, Schuberth I, Alves F. Duocarmycin-based prodrugs for cancer prodrug monotherapy. *Bioorg Med Chem.* 2008;16(12):6312-6318.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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