Total synthesis of the antitumor natural product polycarcin V and evaluation of its DNA binding profile.

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Details

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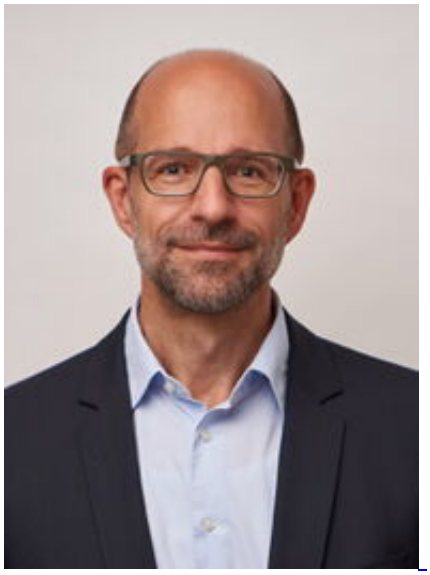
Abstract

The convergent total synthesis of polycarcin V, a gilvocarcin-type natural product that shows significant cytotoxicity with selectivity for nonsmall-cell lung cancer, breast cancer, and melanoma cells, has been achieved in 13 steps from 7, 8, and 22; the sequence features a stereoselective α-C-glycosylation reaction for the union of protected carbohydrate 7 and naphthol 8. The association constant for the binding of polycarcin V to duplex DNA is similar to that previously reported for gilvocarcin V.

Beteiligte Forschungseinheiten

Biomolekulare Chemie Christian Hertweck Mehr erfahren

Leibniz-HKI-Autor*innen



Christian Hertweck

Details



Keishi Ishida

Details

Identifier

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