

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

Cai X, Ng K, Panesar H, Moon SJ, Paredes M, Ishida K, Hertweck C, Minehan TG (2014) Total synthesis of the antitumor natural product polycarcin V and evaluation of its DNA binding profile. *Org Lett* 16(11), 2962-2965.

[Details](#)



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

doi: 10.1021/ol501095w

PMID: 24824354