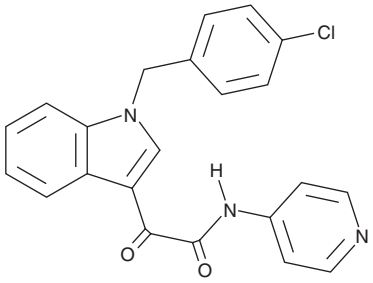
PRODUCT INFORMATION

Indibulin

Item No. 34524

CAS Registry No.:	204205-90-3
Formal Name:	1-[(4-chlorophenyl)methyl]-α-oxo-N-4-pyridinyl-1H-indole-3-acetamide
Synonyms:	D-24851, ZIO 301
MF:	$C_{22}H_{16}ClN_3O_2$
FW:	389.8
Purity:	≥95%
UV/Vis.:	λ_{max}: 267, 278, 344 nm
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

Indibulin is supplied as a solid. A stock solution may be made by dissolving the indibulin in the solvent of choice, which should be purged with an inert gas. Indibulin is soluble in the organic solvent chloroform at a concentration of approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of indibulin can be prepared by directly dissolving the solid in aqueous buffers. Indibulin is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Indibulin is an inhibitor of microtubule assembly.[1] It destabilizes microtubules and is selective for immature neuronal and nonneuronal microtubules over mature neuronal microtubules.[2] Indibulin is cytotoxic to a variety of cancer cells, including human SKOV3 ovarian, U87 glioblastoma, and AsPC-1 pancreatic cancer cells (IC_{50}s = 36, 77, and 285 nM, respectively).[1] It also induces complete tumor regression in a rat Yoshida AH13 sarcoma model when administered at a dose of 10 mg/kg without inducing systemic or neurotoxicity.

References

1. Bacher, G., Nickel, B., Emig, P., *et al.* D-24851, a novel synthetic microtubule inhibitor, exerts curative antitumoral activity *in vivo*, shows efficacy toward multidrug-resistant tumor cells, and lacks neurotoxicity. *Cancer Res.* **61(1)**, 392-399 (2001).
2. Wienecke, A. and Bacher, G. Indibulin, a novel microtubule inhibitor, discriminates between mature neuronal and nonneuronal tubulin. *Cancer Res.* **69(1)**, 171-177 (2009).

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