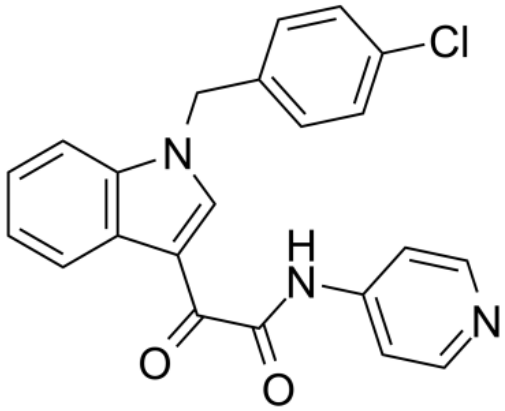
Product Data Sheet

Product Name: Indibulin
Cat. No.: GC36308

Chemical Properties

Cas. No.	204205-90-3		
SMILES	O=C(NC1=CC=NC=C1)C(C2=CN(CC3=CC=C(Cl)C=C3)C4=C2C=CC=C4)=O		
Formula	$C_{22}H_{16}ClN_3O_2$	M.Wt	389.83
Solubility	DMSO: 50 mg/mL (128.26 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Indibulin (ZIO 301) , an orally applicable inhibitor of tubulin assembly, shows potent anticancer activity with a minimal neurotoxicity. Indibulin reduces inter-kinetochoric tension, produces aberrant spindles, activates mitotic checkpoint proteins Mad2 and BubR1, and induces mitotic arrest and apoptosis[1]. Tubulin[1]

Indibulin (300-2100 nM; 48 hours) inhibits the proliferation of MCF-7 cells with an IC50 of 150 nM[1]. Indibulin (300, 600 nM; 48 hours) blockes the cells in the G2/M phase indicating that indibulin blockes

the progression of the cell cycle at mitosis[1]. Indibulin (150-600 nM; 24 hours) induces apoptosis in MCF-7 cells[1]. Indibulin (150-600 nM; 48 hours) with 300 and 600 nM generates cleaved fragments of PARP protein the treatment of MCF-7 cells[1]. Cell Proliferation Assay[1] Cell Line: MCF-7 cells

[1]. Kapoor S, et al. Indibulin dampens microtubule dynamics and produces synergistic antiproliferative effect with vinblastine in MCF-7 cells: Implications in cancer chemotherapy. Sci Rep. 2018 Aug 17;8(1):12363.

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