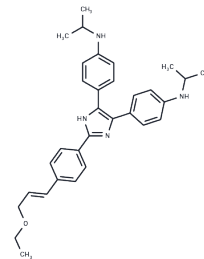


ONT-093

## Chemical Properties

CAS No. :	216227-54-2
Formula:	C32H38N4O
Molecular Weight:	494.67
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	ONT-093 (OC-144-093) is an oral P-glycoprotein (P-gp) inhibitor with potential anti-cancer activity, used in the study of myelodysplastic syndromes.
Targets(IC50)	P-gp
In vitro	ONT-093 is an orally active, potent, and non-toxic P-GP-mediated multidrug resistance inhibitor. ONT-093 reversed multidrug resistance (MDR) to doxorubicin, paclitaxel, and vinblastine in human lymphoma, breast, ovarian, uterine, and colorectal cancer cell lines expressing P-glycoprotein (P-gp), with a mean EC50 of 0.032 $\mu$ M. ONT-093 blocked the binding of [3H] azzapine to P-glycoprotein and inhibited P-glycoprotein ATPase activity. [1]
In vivo	ONT-093 extended the lifespan of doxorubicin-treated mice implanted with MDR P388 leukemia cells by >100% and significantly enhanced the in vivo anti-tumor activity of paclitaxel in MDR human breast and colon cancer xenotransplantation models. [1]

## Solubility Information

Solubility	Methanol: 100 mg/mL (202.15 mM), Sonication is recommended. DMSO: 80 mg/mL (161.72 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.0215 mL	10.1077 mL	20.2155 mL
5 mM	0.4043 mL	2.0215 mL	4.0431 mL
10 mM	0.2022 mL	1.0108 mL	2.0215 mL
50 mM	0.0404 mL	0.2022 mL	0.4043 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Newman MJ, et al. Discovery and characterization of OC144-093, a novel inhibitor of P-glycoprotein-mediated multidrug resistance. *Cancer Res.* 2000 Jun 1;60(11):2964-72.

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