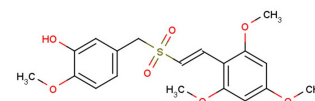


ON-013100

## Chemical Properties

CAS No.:	865783-95-5
Formula:	C <sub>19</sub> H <sub>22</sub> O <sub>7</sub> S
Molecular Weight:	394.44
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	ON-013100 is an antineoplastic drug. It also acts as a mitotic inhibitor that could inhibit Cyclin D1 expression.
Targets(IC <sub>50</sub> )	Cdk4/cyclin D1: None
In vitro	ON 013100 inhibits the proliferation of MCL (JEKO-1 and MINO), breast (MCF7 and MDA-MB-231), gastric (AGS), and esophageal (OE19, OE33, and FLO-1) cancer cell lines at a nanomolar concentration (ON 013100 GI <sub>50</sub> =6.7-11.2 nM). ON013100 significantly alters the cell cycle profile, dramatically increasing the number of cells in the G2/M phase. Treatment of the cells with even 0.1 μM of ON013100 results in an arrest of the G2/M phase of the cell cycle. ON-013100 induces apoptosis and has activity against most human cancer cell lines in vitro[2][3].

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.535 mL	12.676 mL	25.352 mL
5 mM	0.507 mL	2.535 mL	5.07 mL
10 mM	0.254 mL	1.268 mL	2.535 mL
50 mM	0.051 mL	0.254 mL	0.507 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

### Reference

1. Cho SY, et al. Determination of the glucuronide metabolite of ON 013100, a benzylstyrylsulfone antineoplastic drug, in colon cancer cells using LC/MS/MS. J Pharm Biomed Anal. 2013 Mar 5;75:138-44.
2. Park IW, et al. Evaluation of novel cell cycle inhibitors in mantle cell lymphoma. Oncogene. 2007 Aug 16;26(38):5635-42.
3. Neel Jasani, et al. Potent anticancer activity of an orally bioavailable small molecule, ON 013100, and its water soluble derivative, briciclib, a clinical-stage eIF4E-targeted agent. AACR 106th Annual Meeting 2015; April 18-22, 2015; Philadelphia, PA.

Inhibitors · Natural Compounds · Compound Libraries

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