Purdue Bioscience

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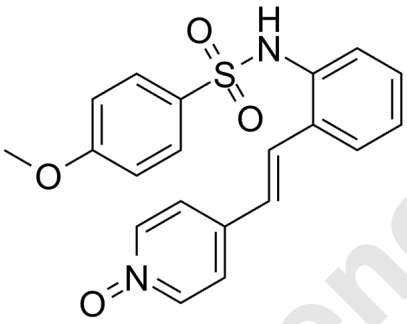
Data Sheet

Product Information

Catalog Number	BP13260
Product Name	HMN-176
Description	HMN-176 is a stilbene derivative which inhibits mitosis, interfering with polo-like kinase-1 (plk1).
In vitro	HMN-176 (2.5 μM) greatly increases the duration of mitosis in hTERT-RPE1 and CFPAC-1 Cell lines. The effect of HMN-176 on spindle morphology does not appear to be related to effects on microtubule polymerization. HMN-176 (2.5, 0.25, and 0.025 μM) inhibits aster formation in a concentration dependent manner. HMN-176 (0.1, 1.0, or 10.0 μg/mL) demonstrates inhibitory effects in multiple tumors, with notable activity seen in breast, nonsmall-cell lung, and ovarian cancer specimens. HMN-176 demonstrates activity towards 63% of the breast (5/8), 67% of the non-small cell lung (4/6), and 57% of the ovarian (4/7) tumor specimens treated with 10.0 μg/mL. HMN-176 shows potent cytotoxicity, with a mean IC50 value of 118 nM. HMN-176 displays similar cytotoxicity against tumors with various characteristics from different organs. Treatment with 3 μM HMN-176 suppresses the expression of MDR1 mRNA by 56%. HMN-176 has no significant effect on the residual promoter activity.
In vivo	HMN-176 prevents spindle assembly and meiosis in Spisula oocytes by inhibiting centrosome-dependent MT nucleation, i.e., aster formation. Oocytes treated with 0.25 μM HMN-176 undergoes GVBD, but asters or spindles fails to form, even after prolonged periods. After p.o. of HMN-214 to male rats, the prodrug is not detected in the plasma, while plasma levels of HMN-176 peaks at 2 h and gradually decreases thereafter.
Synonyms	HMN 176, HMN176
CAS No.	173529-10-7

Chemical Formula	C20H18N2O4S
Molecular Weight	382.43
Solubility	DMSO: 30 mg/mL
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

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