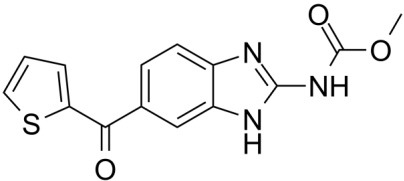


Data Sheet

Product Information

Catalog Number	BP22521
Product Name	Nocodazole
Description	Nocodazole (Oncodazole) is a rapidly-reversible inhibitor of microtubule. Nocodazole binds to β -tubulin and disrupts microtubule assembly/disassembly dynamics, which prevents mitosis and induces apoptosis in tumor cells. Nocodazole inhibits Bcr-Abl, and activates CRISPR/Cas9.
Targets&IC50	Abl: 91 nM (Kd); ABL(E255K); 120 nM (Kd); ABL(T315I); 170 nM (Kd); BRAF: 1.8 μ M (Kd); BRAF(V600E); 1.1 μ M (Kd); c-KIT: 1.6 μ M (Kd); MEK1: 1.7 μ M (Kd); MEK2: 1.6 μ M (Kd); MET: 1.7 μ M (Kd); PI3K γ : 1.5 μ M (Kd); Microtubule/Tubulin: CRISPR/Cas9:
In vitro	Nocodazole exhibits good affinity toward c-KIT, with a Kd value of 1.6 μ M in highly malignant human cancer cells. Nocodazole displays good binding affinity toward the components of the mitogen-activated protein kinase (MAPK) pathway, such as BRAF (Kd=1.8 μ M), BRAF(V600E) (Kd=1.1 μ M), MEK1 (Kd=1.7 μ M), and MEK2 (Kd=1.6 μ M). Nocodazole has the highest affinity for α β IV and the lowest affinity for α β III. Nocodazole (1 nM) induces apoptosis of COLO 205 cancer cells. Nocodazole ($\geq$ 30 μ g/mL) significantly increases the percentage of annexin-V-binding cells without significantly modifying average forward scatter of human erythrocytes.
In vivo	Nocodazole (5 mg/kg/three times per week, i.p.) has antitumor effects in athymic mice bearing COLO 205 tumor xenografts. Nocodazole (1 nM) + R-41400 dramatically increase the levels of p21/CIP1 and p27/KIP1 protein in the tumor tissues.
CAS No.	31430-18-9
Chemical Formula	C ₁₄ H ₁₁ N ₃ O ₃ S

Molecular Weight	301.32
Solubility	DMSO: 20 mg/mL (66.37 mM, Need ultrasonic)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	 <chem>COC(=O)Nc1nc2ccccc2[nH]1C(=O)c3ccsc3</chem>

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