

Catalog Number: CM05137

产品信息

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CM05137

CAS号:
31430-18-9

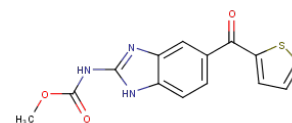
分子式:
 $C_{14}H_{11}N_3O_3S$

主要靶点:
Autophagy|Apoptosis|CRISPR/Cas9|Bcr-Abl|Microtubule Associated

主要通路:
血管生成|蛋白酪氨酸激酶|细胞骨架|凋亡|自噬|DNA损伤和修复

分子量:
301.32

溶解度:
DMSO:15.1 mg/mL (50 mM)



靶点活性

Abl (E255K):0.53 μ M|Abl:0.21 μ M|Abl (T315I):0.64 μ M

体外活性

在COLO205肿瘤移植模型中,Nocodazole与酮康唑联用对凋亡的诱导效果有加强作用,对小鼠的肿瘤体积和重量也有更强地抑制效果。

体内活性

Nocodazole与癌症相关激酶具有较高亲和力,如磷酸化ABL (Kd: 0.091 μ M),c-KIT (Kd: 1.6 μ M),BRAF (Kd: 1.8 μ M) 和 MEK (Kd: 1.6 μ M)。Nocodazole对ABL(E255K)磷酸化 (Kd: 0.12 μ M),ABL(T315I) 磷酸化 (Kd: 0.17 μ M),BRAF(V600E) (Kd: 1.1 μ M) 和PI3K γ (Kd: 1.5 μ M) 的亲合性也很高。高浓度Nocodazole可使细胞中微管迅速解聚,而低浓度可抑制微管的动态不稳定。经Nocodazole同步化处理6 h的分裂期细胞,加入不同浓度的紫杉醇后,可使G1期阻滞 (IC50: 4 nM)。

细胞实验

Nocodazole is dissolved in a final concentration of 0.05% DMSO. Proteins are loaded at 50 μ g/lane and separated by 12% (w:v) sodium dodecyl sulfate-polyacrylamide gel electrophoresis, blotted, and probed with antibodies for cyclin E, p53, p21/CIP1, p27/KIP1, glyceraldehyde 3-phosphate dehydrogenase (GAPDH), cyclin A, cyclin D1, cyclin D3, cyclin B, CDK2, CDK4, and cytochrome C. Immunoreactive bands are visualized by incubating with the colorigenic substrates nitroblue tetrazolium and 5-bromo-4-chloro-3-indolyl-phosphate. The expression of GAPDH is used as the control for equal protein loading.

描述

Nocodazole is a synthetic inhibitor of microtubule polymerization, also inhibits Abl (IC50: 0.21 μ M), Abl(E255K, IC50: 0.53 μ M) and Abl(T315I, IC50: 0.64 μ M) in cell-free assays. Nocodazole binds to beta-tubulin and disrupts microtubule assembly/disassembly dynamics.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years