# 产品名称：INH6
# 产品别名：INH6

## 生物活性：

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| **Description** | INH6 is a potent Nek2/Hec1 inhibitor; inhibits the growth of HeLa cells with an $IC_{50}$ of 2.4 μM. |
| **$IC_{50}$ & Target** | IC50: 2.4 μM (HeLa), 1.7 μM (MB231), 2.1 μM (MB468), 2.5 μM (K562) [1] |
| **In Vitro** | Hec1 is an oncogene overly expressed in many human cancers. Small molecule INH (Inhibitor of Nek2/Hec1) targeting the Hec1 and its regulator, Nek2, in the mitotic pathway is identified to inactivate Hec1/Nek2 function mediated by protein degradation that subsequently leads to chromosome mis-segregation and cell death. INH6 treated cells exhibit increased mitotic population with multipolar spindle configurations. An increased rate of chromosome misalignment is detected upon treatment with INH6 of HeLa cells expressing the chromosome marker protein H2B-GFP. INH6 treated cells shows progressive morphological changes characteristic of dying cells (e.g., membrane bubbling), which is further confirmed by cell cycle profiling with FACS analysis. Approximately 20% of INH6 treated cells are apoptotic 72 hrs after treatment[1] |
| **Solvent&Solubility** | ***In Vitro:***<br>**DMSO : 50 mg/mL (155.08 mM; Need ultrasonic)**<br>**H2O : < 0.1 mg/mL (insoluble)** |

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 3.1015 mL | 15.5077 mL | 31.0154 mL |
| | 5 mM | 0.6203 mL | 3.1015 mL | 6.2031 mL |
| | 10 mM | 0.3102 mL | 1.5508 mL | 3.1015 mL |

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

***In Vivo:***

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 **In Vitro** 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

1.请依序添加每种溶剂： 10% DMSO→ 90% corn oil

Solubility: ≥ 2.5 mg/mL (7.75 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (7.75 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。

以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。

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| **References** | [1]. Qiu XL, et al. Synthesis and biological evaluation of a series of novel inhibitor of Nek2/Hec1 analogues. J Med Chem. 2009 Mar 26;52(6):1757-67. |

## 实验参考：

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| | Standard XTT assays with a four-day drug treatment procedure were performed to measure the dose-dependent cytotoxicity of INH analogs in cultured cells. Triplicate sets were measured and compiled |

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| **Cell Assay** | for final data presentation. Cells were plated on 96-well dishes one day before the drug treatment, followed by drug treatment (2.5 μM INH6) on day 2 and XTT assay on day 5 after drug addition. The absorption at 595 nm was measured with a plate reader and converted to cell survival percentages in comparison to mock treated groups[1]. |
| **References** | [1]. Qiu XL, et al. Synthesis and biological evaluation of a series of novel inhibitor of Nek2/Hec1 analogues. J Med Chem. 2009 Mar 26;52(6):1757-67. |