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产品名称: **4-IBP**
产品别名: **4-IBP**

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|--------------------|--|---|-----------|------------|------------|
| 生物活性: | | | | | |
| Description | 4-IBP is a selective σ_1 agonist with a high level of affinity for the σ_1 receptor ($K_i = 1.7$ nM) and a moderate affinity for the σ_2 receptor ($K_i = 25.2$ nM) . IC50 value: 1.7 nM (K_i) Target: σ_1 in vitro: 4-IBP is a σ_1 receptor agonist, decreases the migration of human cancer cells, including glioblastoma cells. 4-IBP is used to investigate whether targeting the σ_1 receptor could modify in vitro the migration rates of human cancer cells and increase the sensitivity of metastasizing human A549 NSCLC cells and infiltrating human glioblastoma cells to cytotoxic insults of either proapoptotic or proautophagic drugs.[1] in vivo: 4-IBP increases the antitumor effects of temozolomide and irinotecan in immunodeficient mice that were orthotopically grafted with invasive cancer cells.[1] | | | | |
| Solvent&Solubility | In Vitro: DMSO : 20 mg/mL (47.59 mM; Need ultrasonic) H₂O : < 0.1 mg/mL (insoluble) | | | | |
| | Preparing Stock Solutions | <div>Solvent / Mass / Concentration</div> | 1 mg | 5 mg | 10 mg |
| | | 1 mM | 2.3793 mL | 11.8965 mL | 23.7931 mL |
| | | 5 mM | 0.4759 mL | 2.3793 mL | 4.7586 mL |
| | | 10 mM | 0.2379 mL | 1.1897 mL | 2.3793 mL |
| | <p>*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。</p> <p>储备液的保存方式和期限 -80℃, 6 months; -20℃, 1 month。 -80℃ 储存时，请在 6 个月内使用，-20℃ 储存时，请在 1 个月内使用。</p> <p>In Vivo:</p> <p>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：</p> <p>——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</p> <p>1.请依序添加每种溶剂： 10% DMSO →90% corn oil</p> <p>Solubility: ≥ 2 mg/mL (4.76 mM); Clear solution</p> <p>此方案可获得 ≥ 2 mg/mL (4.76 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。</p> <p>以 1 mL 工作液为例，取 100 μL 20.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。</p> | | | | |
| | References | [1]. Megalizzi V, et al. 4-IBP, a sigma1 receptor agonist, decreases the migration of human cancer cells, including glioblastoma cells, in vitro and sensitizes them in vitro and in vivo to cytotoxic insults of proapoptotic and proautophagic drugs. Neoplasia. 2 | | | |