

产品名称: **GNF-5**

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| 生物活性: | | | | | | | | | | | | | | | | | | | | | | |
| Description | | GNF-5, an analogue of GNF-2 with improved pharmacokinetic properties, is a selective non-ATP competitive inhibitor of Bcr-Abl with an IC50 value of 0.22±0.1 uM (Wild type Abl). IC50 Value: 0.22±0.1 uM (Wild type Abl) [1] Target: Abl GNF-5 is a cell-permeable GNF-2 N-hydroxyethyl carboxamide analog that exhibits in vivo efficacy in suppressing the proliferation of Bcr-abl-expressing Ba/F3 (93% and 83% of no-treatment control, respectively, on days 5 and 7 post treatment; 100 mg/kg b.i.d.) and bone marrow cells (~75% of no-treatment control in both WBC counts and spleen weight on day 7 post treatment; 50 mg/kg b.i.d.) in murine xenograft models of leukemia. Similar to GNF-2, GNF-5 exerts its effect via an allosteric mechanism (IC50 = 0.22 M against wild-type Abl) by targeting the myristate-binding pocket near the c-terminus of Abl kinase domain and thereby altering the conformational dynamics of the ATP-binding pocket. GNF-5 is ineffective toward the myristate-binding site mutant E505K and the ATP-binding site 'gatekeeper' mutant T315I. | | | | | | | | | | | | | | | | | | | | |
| | | In Vitro: DMSO : ≥ 49 mg/mL (117.12 mM) * "≥" means soluble, but saturation unknown. | | | | | | | | | | | | | | | | | | | | |
| | | <table><tr><td rowspan="4"><div>Preparing Stock Solutions</div></td><td><div>Solvent / Mass / Concentration</div></td><td>1 mg</td><td>5 mg</td><td>10 mg</td></tr><tr><td>1 mM</td><td>2.3902 mL</td><td>11.9511 mL</td><td>23.9023 mL</td></tr><tr><td>5 mM</td><td>0.4780 mL</td><td>2.3902 mL</td><td>4.7805 mL</td></tr><tr><td>10 mM</td><td>0.2390 mL</td><td>1.1951 mL</td><td>2.3902 mL</td></tr></table> | | | | <div>Preparing Stock Solutions</div> | <div>Solvent / Mass / Concentration</div> | 1 mg | 5 mg | 10 mg | 1 mM | 2.3902 mL | 11.9511 mL | 23.9023 mL | 5 mM | 0.4780 mL | 2.3902 mL | 4.7805 mL | 10 mM | 0.2390 mL | 1.1951 mL | 2.3902 mL |
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| | 10 mM | 0.2390 mL | 1.1951 mL | 2.3902 mL | | | | | | | | | | | | | | | | | | |
| Solvent&Solubility | | *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→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution | | | | | | | | | | | | | | | | | | | | |
| | | 此方案可获得 ≥ 2.5 mg/mL (5.98 mM, 饱和度未知) 的澄清溶液。 | | | | | | | | | | | | | | | | | | | | |
| | | 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。 | | | | | | | | | | | | | | | | | | | | |
| | | 2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution | | | | | | | | | | | | | | | | | | | | |
| | | 此方案可获得 ≥ 2.5 mg/mL (5.98 mM, 饱和度未知) 的澄清溶液。 | | | | | | | | | | | | | | | | | | | | |
| | | 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 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。 | | | | | | | | | | | | | | | | | | | | |

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| | <p>3.请依序添加每种溶剂： 10% DMSO →90% corn oil</p> <p>Solubility: ≥ 2.5 mg/mL (5.98 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (5.98 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 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。</p> |
| References | <p>[1]. Zhang J, et al. Targeting Bcr-Abl by combining allosteric with ATP-binding-site inhibitors. <i>Nature</i>. 2010 Jan 28;463(7280):501-6.</p> <p>[2]. Meirson T, et al. Targeting invadopodia-mediated breast cancer metastasis by using ABL kinase inhibitors. <i>Oncotarget</i>. 2018 Apr 24;9(31):22158-22183.</p> |



源叶生物