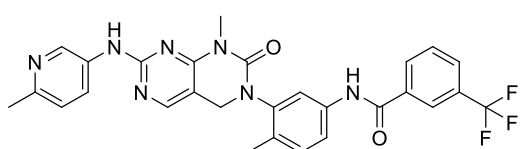


# Product data sheet



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|--|--|
| MedKoo Cat#: 407257<br>Name: GNF-7<br>CAS: 839706-07-9<br>Chemical Formula: C <sub>28</sub> H <sub>24</sub> F <sub>3</sub> N <sub>7</sub> O <sub>2</sub><br>Exact Mass: 547.1944<br>Molecular Weight: 547.5422 |  |
| Product supplied as:   | Powder   |
| Purity (by HPLC):  | ≥ 98%  |
| Shipping conditions  | Ambient temperature  |
| Storage conditions:  | Powder: -20°C 3 years; 4°C 2 years.<br>In solvent: -80°C 3 months; -20°C 2 weeks.  |

## 1. Product description:

GNF-7 is a type-II T315I inhibitor. GNF-7 inhibits Ack1 and germinal center kinase (GCK). GNF-7 displayed significant in vivo efficacy against T315I-Bcr-Abl without appreciable toxicity in a bioluminescent xenograft mouse model using a transformed T315I-Bcr-Abl-Ba/F3 cell line that has a stable luciferase expression. GNF-7 is among the first type-II inhibitors capable of inhibiting T315I to be described and will serve as a valuable lead to design the third generation Bcr-Abl kinase inhibitors.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

| Solvent                   | Max Conc. mg/mL | Max Conc. mM |
|---------------------------|-----------------|--------------|
| DMF                       | 10.0            | 18.26        |
| DMF:PBS (pH 7.2)<br>(1:2) | 0.3             | 0.55         |
| DMSO                      | 20.60           | 37.61        |
| Ethanol                   | 0.1             | 0.18         |

## 4. Stock solution preparation table:

| Concentration / Solvent Volume / Mass | 1 mg    | 5 mg    | 10 mg    |
|---------------------------------------|---------|---------|----------|
| 1 mM                                  | 1.83 mL | 9.13 mL | 18.26 mL |
| 5 mM                                  | 0.37 mL | 1.83 mL | 3.65 mL  |
| 10 mM                                 | 0.18 mL | 0.91 mL | 1.83 mL  |
| 50 mM                                 | 0.04 mL | 0.18 mL | 0.37 mL  |

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Kim N, Shin I, Kim Y, Jeon E, Lee J, Lee C, Nam Y, Lee S, Ju E, Kim C, Son W, Ryu S, Ko M, Sim T. Novel Small Molecules Capable of Blocking mtRAS-Signaling Pathway. *Front Oncol.* 2021 Dec 9;11:768022. doi: 10.3389/fonc.2021.768022. PMID: 34956887; PMCID: PMC8695447.

In vivo study

TBD

## 7. Bioactivity

Biological target:

# Product data sheet



GNF-7 is a Bcr-Abl inhibitor, with IC50s of 133 nM and 61 nM for Bcr-AblWT and Bcr-AblT315I, respectively. GNF-7 also possesses inhibitory activity against both ACK1 (activated CDC42 kinase 1) and GCK (germinal center kinase) with IC50s of 25 nM and 8 nM, respectively.

## In vitro activity

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GNF-7 effectively suppressed proliferation of cancer cells harboring mtRAS with submicromolar potencies (GI50s = 0.169 to 0.938  $\mu$ M).

Reference: Front Oncol. 2021 Dec 9;11:768022. <https://pubmed.ncbi.nlm.nih.gov/34956887/>

## In vivo activity

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TBD

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*