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**Product Data Sheet**

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Product Name: PF-07104091

Cat. No.: GC62660

**Chemical Properties**

Cas. No. 2460249-19-6

Formula  $C_{19}H_{28}N_6O_4$  M.Wt 404.46

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Protocol****Cell experiment [1]:**

Cell lines

Preparation Method 1000 cell/well were seeded in 384-well plate in 20  $\mu$ L of RPMI 1640, or DMEM, respectively in 10% FBS at 37 °C, 5%CO<sub>2</sub>. Assay-ready plates containing 1:3 serial dilutions of compounds in 100% DMSO were prepared using acoustic dispensing technology (ECHO), final starting concentration was 20  $\mu$ M. Compound-treated plates were incubated for 4 days (2 doubling times) and cell proliferation estimated using PI staining.

Reaction Conditions 0-20 $\mu$ M for 4 days

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Applications PF-07104091 inhibited T47D and KPL1 cells with IC50s of 0.785 and 0.603  $\mu$ M, respectively.

### Animal experiment [2]:

Animal models

Preparation Method

Dosage form

Applications

References:

[1]: Gharbi S I, Pelletier L A, Espada A, et al. Crystal structure of active CDK4-cyclin D and mechanistic basis for abemaciclib efficacy[J]. npj Breast Cancer, 2022, 8(1): 126.

### Background

PF-07104091 is a CDK2/cyclin E1 inhibitor, a selective ATP-site inhibitor targeting the cyclin-bound activated state of the kinase [1]. PF-07104091(Example 13) inhibited CDK2/cyclin E1, GSK3 $\beta$ , CDK1/cyclin A2, CDK4/cyclin D1, CDK6/cyclin D3 and CDK9, with Kis of 1.16, 537.81, 110, 238, 465 and 117 nM, respectively. PF-07104091 has anti-

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tumor activity for cyclin E1-amplified cancers. [1].

PF-07104091 inhibited T47D and KPL1 cells with IC50s of 0.785 and 0.603  $\mu$ M, respectively [2].

The combination of abemaciclib and PF-07104091 decreased T47D and KPL1 cells survival compared to either single agent [2].

### References:

[1]. Behenna, D. C.; Freeman-Cook, K. D.; Hoffman, R. L.; Nagata, A.; Ninkovic, S.; Sutton, S. C. Preparation of aminopyrazolylcyclopentyl carbamate derivatives for use as CDK2 inhibitors. WO 2020157652, 2020.

[2]. Gharbi S I, Pelletier L A, Espada A, et al. Crystal structure of active CDK4-cyclin D and mechanistic basis for abemaciclib efficacy[J]. npj Breast Cancer, 2022, 8(1): 126.

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