

## Product Data Sheet

Product Name: KDM5B-IN-4

Cat. No.: GC73216

### Chemical Properties

Cas. No.

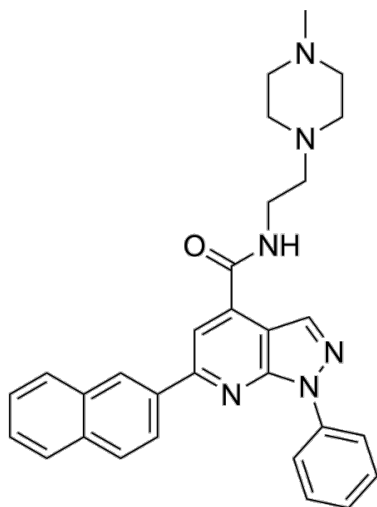
Formula  $C_{30}H_{30}N_6O$  M.Wt 490.6

Solubility DMSO : 33.33 mg/mL (67.94 mM; ultrasonic and adjust pH to 7 with 1 M HCL) Storage  $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  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



### Background

KDM5B-IN-4 (compound 11ad) is a lysine demethylase 5B (KDM5B) inhibitor with an  $IC_{50}$  of  $0.025 \mu M$ . KDM5B-IN-4 increases substrate H3K4me1/2/3 level by inhibiting KDM5B in PC-3 cells. KDM5B-IN-4 downregulates PI3K/AKT. KDM5B-IN-4 reduces tumor volume in mice and shows less toxic to organs.

KDM5B-IN-4 ( $20 \mu M$ , 72 h) has targeted inhibition of KDM5B and induction of H3K4me1/2/3

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

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production in PC-3 cells[1].KDM5B-IN-4 (0-20  $\mu$ M; 72 h) not only targets KDM5B in cells, but also induces H3K4me1/2/3 accumulation in PC-3 cells[1]. KDM5B-IN-4 (0-10  $\mu$ M, 0-24 h) inhibited the proliferation and migration of prostate cancer cells, blocked the PC-3 cycle in the G2/M phase, and induced apoptosis of PC-3 cells to a certain extent[1].

KDM5B-IN-4 (50 mg/kg, i.g., 50 mg/kg/d, 13 days) treatment at 50 mg/kg was slightly better than the efficacy of DOX[1].KDM5B-IN-4 (50 mg/kg, i.g., 50 mg/kg/d, 25 days) did not cause noticeable damage to the mice, confirming that 11ad had no significant toxicity or side effects in vivo[1].Pharmacokinetic Analysis in KDM5B-IN-4 (compound 11ad) Xenograft Model[1]KDM5B-IN-4 (compound 11ad) 药代动力学分析[1]

### References:

[1]. Cao Y, et al. Discovery of a novel 1H-pyrazole- [3,4-b] pyridine-based lysine demethylase 5B inhibitor with potential anti-prostate cancer activity that perturbs the phosphoinositide 3-kinase/AKT pathway. Eur J Med Chem. 2023 May 5;251:115250.

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