Product Data Sheet

Product Name: EP102
Cat. No.: GC79168

Chemical Properties

Cas. No.	3050818-07-7		
Formula	$C_{27}H_{32}N_6OS$	M.Wt	488.65
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			

Background

EP102 is an orally active, selective inhibitor of the METTL3/METTL14 complex with an IC_{50} of 2 nM. EP102 reduces intracellular N6-methyladenosine levels, inhibits cancer cell proliferation, and thereby suppresses tumor growth in mouse models. EP102 is applicable for the research of acute myeloid leukemia, ovarian solid tumors and advanced solid tumors [1].

In Vivo, EP102 (20-47 mg/kg; p.o.; QD, TIW; 4 weeks) inhibits AML tumor growth in a disseminated mouse xenograft model, with superior efficacy observed with a 47 mg/kg oral three-times-weekly dose compared to a 20 mg/kg oral daily dose[1]. EP102 (47 mg/kg; p.o.; TIW; 32 days) achieves

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>90% tumor growth inhibition and reduces metastasis in an intraovarian mouse xenograft model of ovarian cancer when dosed orally at 47 mg/kg three times weekly[1].

In Vitro, EP102 (72 h) inhibits the viability of Kasumi-1, MV-4-11, Calu-6, A549, FaDu, SK-OV-3, and Caov-3 human cancer cell lines with IC_{50} values ranging from 31 nM to 225 nM [1]. EP102 inhibits intracellular m6A levels in Kasumi-1, MV-4-11, Calu-6, A549, FaDu, and SK-OV-3 human cancer cell lines with IC_{50} values ranging from 6 nM to 19 nM [1]. EP102 exhibits metabolic stability in rat, minipig, and human liver microsomes with half-lives of 149 min, 44 min, and 53 min, respectively[1]. EP102 selectively inhibits human CYP3A4 with an IC_{50} of 0.9 μM and CYP3A5 with an IC_{50} of 16 μM, while not significantly inhibiting the other 8 tested major human CYPs[1].

References:
[1]. Dutheuil G, et al. Optimization of METTL3 Inhibitors for the Treatment of Solid Tumors and AML. J Med Chem. 2026;69(8):9585-9602.

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