

Product Data Sheet

Product Name: Ziftomenib

Cat. No.: GC64518

Chemical Properties

Cas. No. 2134675-36-6

Formula $C_{33}H_{42}F_3N_9O_2S_2$

M.Wt 717.87

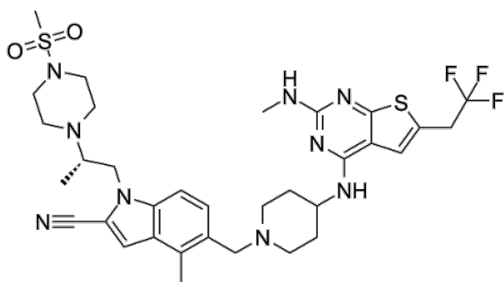
Solubility

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 Acute myeloid leukemia (AML) cells (OCI-AML3, MOLM13 and MV411 cells)

Preparation Method OCI-AML3, MOLM13 and MV411 cells were incubated with 150nM Ziftomenib for 3-4 days, followed by RNA sequencing.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Reaction
Conditions 150nM; 3-4 days

Applications Ziftomenib uniformly induced transcriptional downregulation of MEIS1, PBX3, FLT3, and BCL2 in all NPM1^{mut} (OCI-AML3 cells) and MLL-r cells (MOLM13 and MV411 cells) and demonstrated high consistency with the effects of other menin inhibitors.

Animal experiment [2]:

Animal models NSG mice

NSG mice were engrafted with luciferized patient-derived MLL-AF9+FLT3-TKD expressing Acute myeloid leukemia (AML) cells and monitored for 5-7 days. Mice were imaged by Xenogen camera, randomized to equivalent bioluminescence and treated with vehicle, 75mg/kg of Ziftomenib (p.o., daily×5 days) and/or 30mg/kg of OTX015 (p.o., daily×5 days), or 30mg/kg of venetoclax (p.o., daily×5 days) for 2 weeks. Total bioluminescent flux was determined for each cohort by Xenogen camera.

Dosage form 75mg/kg; 5 days; p.o.

Applications Whereas monotherapy with relatively low dose of venetoclax or OTX015 alone for 2 weeks Exhibited modest reduction of AML burden, treatment with Ziftomenib alone induced marked and significant reduction in AML burden.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

References:

- [1] Rausch J, Dzama M M, Dolgikh N, et al. Menin inhibitor ziftomenib (KO-539) synergizes with drugs targeting chromatin regulation or apoptosis and sensitizes acute myeloid leukemia with MLL rearrangement or NPM1 mutation to venetoclax[J]. *Haematologica*, 2023, 108(10): 2837.
- [2] Fiskus W, Daver N, Boettcher S, et al. Activity of menin inhibitor ziftomenib (KO-539) as monotherapy or in combinations against AML cells with MLL1 rearrangement or mutant NPM1[J]. *Leukemia*, 2022, 36(11): 2729-2733.

Background

Ziftomenib is a highly selective and orally active inhibitor of the Menin-MLL (mixed lineage leukemia) interaction used to treat relapsed or refractory acute myeloid leukemia (AML)^[1, 2]. Ziftomenib can inhibit the proliferation and survival of MLL-rearranged leukemia cells by blocking the binding of Menin protein to MLL fusion protein^[3].

In vitro, Ziftomenib (150nM) treatment of AML cell lines (OCI-AML3, MOLM13, MV411 cells) induced transcriptional downregulation of MEIS1, PBX3, FLT3 and BCL2^[4].

In vivo, oral treatment of AML cell xenograft mice with Ziftomenib (75mg/kg) significantly reduced the tumor burden in mice and prolonged the survival of mice^[5].

References:

- [1] Zhao J, Dong X, Che J. Ziftomenib (KO-539): a potent and selective Menin inhibitor for the treatment of recurrent or refractory acute myeloid leukemia[M]//Drug Discovery Stories. Elsevier, 2025: 455-466.
- [2] Wang E S, Issa G C, Erba H P, et al. Ziftomenib in relapsed or refractory acute myeloid leukaemia (KOMET-001): A multicentre, open-label, multi-cohort, phase 1 trial[J]. *The Lancet Oncology*, 2024, 25(10): 1310-1324.
- [3] Dhiman S, Dhillon V, Balasubramanian S K. Targeting Menin in Acute Myeloid Leukemia: Therapeutic Advances and Future Directions[J]. *Cancers*, 2024, 16(22): 3743.
- [4] Rausch J, Dzama M M, Dolgikh N, et al. Menin inhibitor ziftomenib (KO-539) synergizes with drugs targeting chromatin regulation or apoptosis and sensitizes acute myeloid leukemia with MLL rearrangement or NPM1 mutation to venetoclax[J]. *Haematologica*, 2023, 108(10): 2837.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

[5] Fiskus W, Daver N, Boettcher S, et al. Activity of menin inhibitor ziftomenib (KO-539) as monotherapy or in combinations against AML cells with MLL1 rearrangement or mutant NPM1[J]. Leukemia, 2022, 36(11): 2729-2733.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA