

Product Datasheet

HM43239

Catalog No. **BP-01999** · CAS **2294874-49-8** · Form **free base** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-09-10**

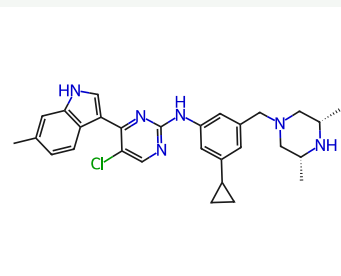
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Target FLT3; Apoptosis	Research area Cancer
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Molecular formula **C₂₉H₃₃ClN₆**

Molecular weight **501.0660**

STRUCTURE



DESCRIPTION

HM43239 is a Novel Potent Small Molecule FLT3 Inhibitor, in Acute Myeloid Leukemia (AML) with FMS-like Tyrosine Kinase 3 (FLT3) Mutations

BIOLOGICAL ACTIVITY

In Vitro

Tuspetinib potently inhibits the growth of acute myeloid leukemia cell lines harboring FLT3 ITD mutation, such as MV4-11 (IC₅₀: 1.3 nM), MOLM-13 (IC₅₀: 5.1 nM), and MOLM-14 (IC₅₀: 2.9 nM). Tuspetinib also inhibits KG1a cells (CD34+/CD38- cells) proliferation.

Tuspetinib induces the caspase 3/7-dependent apoptosis of leukemic stem cell (LSC) marker-expressing KG1a cells (CD34+/CD38- cells).

Tuspetinib potently inhibits phosphorylation of SYK, STAT3, and STAT5 in KG1a cells.

In Vivo

Tuspetinib shows the excellent dose proportional antitumor activity in mouse models xenografted with both MV4-11 and MOLM-13 cell lines without any significant toxicity.

Tuspetinib prolongs survival in FLT3 ITD/TKD double mutated xenograft mouse models.

SOLUBILITY

Soluble in DMSO 125 mg/mL

REFERENCES

[1]. Miyoung Lee, et.al. Abstract 804: Antitumor activity of the potent and novel FLT3 inhibitor HM43239 in acute myeloid leukemia. Cancer Res July 1 2018 (78) (13 Supplement) 804.

[2]. Naval G. Daver, et.al. HM43239, a Novel Potent Small Molecule FLT3 Inhibitor, in Acute Myeloid Leukemia (AML) with FMS-like Tyrosine Kinase 3 (FLT3) Mutations: Phase 1 /2 Study. Blood 2019; 134 (Supplement_1): 1331.

[3]. JiSook Kim, et.al. Abstract 1293: HM43239, a novel FLT3 inhibitor in overcoming resistance for acute myeloid leukemia. Cancer Res July 1 2019 (79) (13 Supplement) 1293.

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