Product Datasheet

JBI-589

Catalog No. **BP-02375** · CAS **2308504-22-3** · Form **free base** · Physical state **other** · Color **Light yellow to yellow** · Version **1.0** · Revision **2026-09-11**

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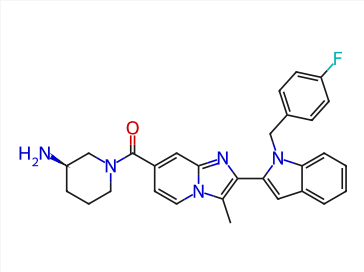
Target	Research area
Protein Arginine Deiminase	**Cancer**

Molecular formula	$C_{29}H_{28}FN_5O$
Molecular weight	**481.5639**

STRUCTURE



DESCRIPTION

JBI-589 is a non-covalent PAD4 isoform-selective inhibitor. JBI-589 reduces CXCR2 expression and blocks neutrophil chemotaxis. JBI-589 reduces primary tumor and metastases, and enhances the anti-tumor effect of checkpoint inhibitors.

BIOLOGICAL ACTIVITY

JBI-589 (1 μM, 2 h) significantly downregulates the expression of CXCR2 on neutrophils and reduces their migration induced by CXCL1 in vitro, with no effect on the suppressive activity of Ly6G cells generated from HPCs JBI-589 (50 mg/kg, p.o., twice a day for 24 days) significantly inhibits the growth of primary tumors in LL2 and B16F10 tumor C57BL/6 mouse models

SOLUBILITY

Soluble in DMSO

In vitro	DMSO : 100 mg/mL

REFERENCES

[1]. Deng H, et al. A Novel Selective Inhibitor JBI-589 Targets PAD4-Mediated Neutrophil Migration to Suppress Tumor Progression. Cancer Res. 2022 Oct 4;82(19):3561-3572.

[2]. Gajendran C, et al. Alleviation of arthritis through prevention of neutrophil extracellular traps by an orally available inhibitor of protein arginine deiminase 4. Sci Rep. 2023 Feb 23;13(1):3189.