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# Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

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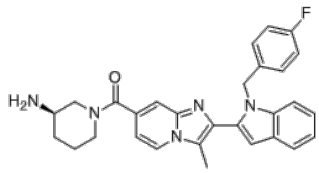
|---|---|---|
| **Product Name** | : | JBI-589 |
| **Cat. No.** | : | PC-49339 |
| **CAS No.** | : | 2308504-22-3 |
| **Molecular Formula** | : | $C_{29}H_{28}FN_5O$ |
| **Molecular Weight** | : | 481.575 |
| **Target** | : | Protein Arginine Deiminase (PAD) |
| **Solubility** | : | 10 mM in DMSO |




1. Deng H, et al. ***Cancer Res***. 2022 Oct 4;82(19):3561-3572.

## Biological Activity

JBI-589 (JBI589) is potent, selective, orally active **PAD4** small molecule inhibitor, reduces CXCR2 expression and blocks neutrophil chemotaxis.
In vitro, JBI-589 inhibited PMA-induced citrullination of histone H3 in mouse neutrophils in a dose-dependent manner.
JBI-589 demonstrated excellent oral bioavailability with maximum concentration in plasma achieved 0.5h after oral administration and halflife of 6.3h.
JBI-589 significantly and specifically downregulated CXCR2 expression on neutrophil, and reduced their CXCL1-induced migration.
JBI-589 treatment markedly reduced primary tumor growth LL2-bearing and B16F10-bearing mice, also improved the effect of immune checkpoint blockade (ICB).

## References