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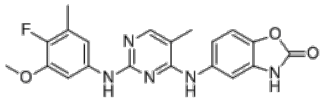
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	Ifidancitinib
Cat. No.	:	PC-49397
CAS No.	:	1236667-40-5
Molecular Formula	:	$C_{20}H_{18}FN_5O_3$
Molecular Weight	:	395.394
Target	:	JAK
Solubility	:	10 mM in DMSO



Biological Activity

Ifidancitinib (ATI-502, ATI-50002, R507) is a potent and selective next-generation **JAK1/3** inhibitor, potently inhibits γc cytokine signaling.
Ifidancitinib strongly inhibited IL-2-stimulated STAT5 phosphorylation in mouse T cells.
Ifidancitinib also exhibited potent inhibitory effects on JAK1/2-mediated IFN-γ signaling.
Ifidancitinib treatment significantly reduced the population of NKG2D+CD8+ T cells in a dose-dependent manner.
Ifidancitinib impaired murine T cell proliferation and human T cell function in vitro and in vivo.
Ifidancitinib prevented the onset of alopecia in alopecia areata (AA) skin grafted C3H/HeJ mice.
Ifidancitinib induced multiple co-inhibitory receptors in CD44+CD62L- CD8+ T cells.
Ifidancitinib exhibited potent anti-inflammatory effects both in vitro and in C3H/HeJ mice in vivo, suppressed IFN-γ signaling with the reduced expression of IFN-γ-dependent genes such as MHC class I, CXCL10, and CXCL11.

References

Zhenpeng Dai, et al. ***Front Immunol.*** 2022 Sep 20;13:955038.

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