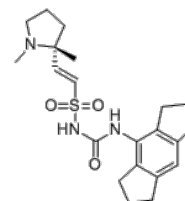


Product Name : ZYIL1
Cat. No. : PC-21637
CAS No. : 2455519-86-3
Molecular Formula : C₂₁H₂₉N₃O₃S
Molecular Weight : 403.54
Target : NOD-like Receptor (NLR)
Solubility : 10 mM in DMSO



CAS: 2455519-86-3

Biological Activity

ZYIL1 (Usnoflast) is a potent, orally active, selective **NLRP3** inflammasome inhibitor, Nigericin-mediated interleukin (IL)-1 β release in isolated microglia cells with IC₅₀ of 43 nM.

ZYIL1 shows IC₅₀ values of 13 nM, 11 nM and 10 nM against ATP, Nigericin and MSU mediated IL-1 β release respectively in THP-1 cells.

ZYIL1 shows IC₅₀ value of 4.5 nM against ATP-mediated IL-1 β release in hPBMCs. ZYIL1 treatment showed a concentration-dependent inhibition in caspase-1 activity in LPS-primed THP-1 cells upon ATP challenge with IC₅₀ value of 9.6 nM.

ZYIL1 prevents NLRP3-induced apoptosis-associated speck-like protein containing a caspase activation and recruitment domain oligomerization, thus inhibiting NLRP3 inflammasome pathway.

ZYIL1 shows potential for treatment of cryopyrin-associated periodic syndromes (CAPS).

References

Yuan Z, et al. *Eur J Pharmacol.* 2023 Oct 15;957:175931.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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