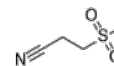


Product Name : OLT1177
Cat. No. : PC-24509
CAS No. : 54863-37-5
Molecular Formula : C₄H₇NO₂S
Molecular Weight : 133.17
Target : NOD-like Receptor (NLR)
Solubility : 10 mM in DMSO



Biological Activity

OLT1177 (Dapansutritrile) is an orally active β -sulfonyl nitrile molecule, inhibits activation of the NLRP3 inflammasome, prevents NLRP3-ASC, as well as NLRP3-caspase-1 interaction, thus inhibiting NLRP3 inflammasome oligomerization. OLT1177 reduces IL-1 β and IL-18 release following canonical and noncanonical NLRP3 inflammasome activation at nanomolar concentrations.

OLT1177 decreased IL-1 β levels by 60% and IL-18 by 70% at concentrations 100-fold lower in vitro in LPS-stimulated human blood-derived macrophages.

OLT1177 also reduced IL-1 β release and caspase-1 activity in freshly obtained human blood neutrophils.

OLT1177 inhibited LPS-induced IL-1 β release by 84% and 36% in monocytes isolated from patients with cryopyrin-associated periodic syndrome (CAPS).

OLT1177 (1 and 10 μ M) reduced ATPase activity of recombinant NLRP3.

OLT1177 significantly lowered steady-state levels of phosphorylated NF- κ B and I κ B kinase in spleen cells from OLT1177-treated mice.

References

Toldo S, et al. J Cardiovasc Pharmacol. 2019 Apr;73(4):215-222.

Marchetti C, et al. Proc Natl Acad Sci U S A. 2018 Feb 13;115(7):E1530-E1539.

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

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