
CX-5461

产品编号: D51016

CAS: 1138549-36-6

分子式: C₂₇H₂₇N₇O₂S

纯度: ≥98%

InChi: InChI=1S/C₂₇H₂₇N₇O₂S/c1-17-14-29-18(15-28-17)16-30-26(36)23-24(35)19-8-9-22(33-11-5-10-32(2)12-13-33)31-25(19)34-20-6-3-4-7-21(20)37-27(23)34/h3-4,6-9,14-15H,5,10-13,16H₂,1-2H₃, (H,30,36)

InChi Key: XGPBJCHFROADCK-UHFFFAOYSA-N

Smiles: CN1CCN(CCC1)C1C=CC2=C(N=1)N1C(SC3=CC=CC=C13)=C(C2=O)C(=O)NCC1C=NC(C)=CN=1

外观: 固体粉末

作用通路: DNA/RNA Synthesis

溶解性: DMSO up to 2 mM

保存条件: Store in dry, dark place for one year.

产品介绍: CX-5461 is a first-in-class non-genotoxic small molecule targeted inhibitor of RNA polymerase I (Pol I) that activates the p53 pathway without causing DNA damage. CX-5461 selectively inhibits rRNA synthesis by Pol I in the nucleolus, but does not inhibit mRNA synthesis by RNA Polymerase II (Pol II) and does not inhibit DNA replication or protein synthesis. Inhibition of Pol I results in nucleolar stress and release of ribosomal proteins (RP) from the nucleolus. The RP bind to Mdm2 and liberate p53 to orchestrate apoptosis in cancer cells. CX-5461 demonstrates a favorable preclinical profile, potently and selectively kills cancer cells, demonstrates robust in vivo efficacy in multiple models, and has demonstrated oral bioavailability in multiple species.