

Product Name : SCR7

Synonyms : SCR-7

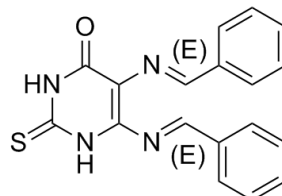
Cat No. : M12159

CAS Number : 1533426-72-0

Molecular Formula : C₁₈H₁₄N₄O₂S

Formula Weight : 334.40

Chemical Name : 4(1H)-Pyrimidinone, 2,3-dihydro-5,6-bis[(phenylmethylene)amino]-2-thioxo-



Description : SCR7 is a specific inhibitor of nonhomologous end-joining (NHEJ), blocks Ligase IV-mediated joining by interfering with its DNA binding but not that of T4 DNA Ligase or Ligase I; inhibits NHEJ in a Ligase IV-dependent manner within cells, causes accumulation of double-strand breaks (DSBs), and activates the intrinsic apoptotic pathway; decreases cell proliferation of MCF7, A549, and HeLa with IC₅₀ of 40, 34, and 44 uM, respectively; increases the efficacy of DSB-inducing therapeutic modalities in mouse xenografts; increases the efficiency of precise genome editing with CRISPR-Cas9 in mammalian cell lines and in mice.

Pathway : Cell Cycle/DNA Damage

Target : DNA/RNA Synthesis

Receptor : DNALigaseIV

Solubility : DMSO: ≥ 45 mg/mL

SMILES : O=C1C(=N/C(=C/C=C/C1)=C/N=C/C2=CC=CC=C2)N3)NC3=S

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Srivastava M, et al. Cell. 2012 Dec 21;151(7):1474-87. | 2. Greco GE, et al. DNA Repair (Amst). 2016 Jul;43:18-23. | 3. Maruyama T, et al. Nat Biotechnol. 2015 May;33(5):538-42. | 4. Gkatzamanidou M, et al. Blood. 2016 Sep 1;128(9):1214-25.