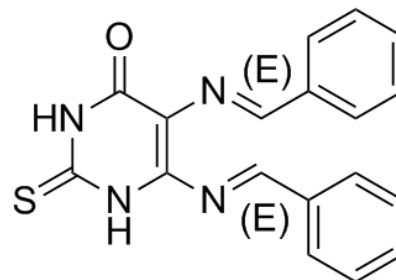


Product Name : SCR7
Cat. No. : PC-43167
CAS No. : 1533426-72-0
Molecular Formula : C₁₈H₁₄N₄OS
Molecular Weight : 334.395
Target : DNA/RNA Synthesis
Solubility : DMSO: ≥ 45 mg/mL



Biological Activity

SCR7 is a specific inhibitor of nonhomologous end-joining (**NHEJ**), blocks **DNA Ligase IV**-mediated joining by interfering with its DNA binding but not that of T4 DNA Ligase or Ligase I.

SCR7 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.

SCR7 increases the efficacy of DSB-inducing therapeutic modalities in mouse xenografts.

SCR7 increases the efficiency of precise genome editing with CRISPR-Cas9 in mammalian cell lines and in mice.

References

Srivastava M, et al. **Cell**. 2012 Dec 21;151(7):1474-87.

Greco GE, et al. **DNA Repair (Amst)**. 2016 Jul;43:18-23.

Maruyama T, et al. **Nat Biotechnol**. 2015 May;33(5):538-42.

Gkatzamanidou M, et al. **Blood**. 2016 Sep 1;128(9):1214-25.

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

E-mail: tech@probechem.com