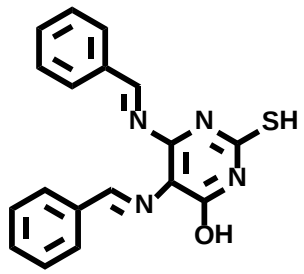
Xcess Biosciences Inc.
1804 Garnet Ave, Suite #396
San Diego, CA 92109

http://www.xcessbio.com
Phone: 1-858-866-8887
Toll free: 1-866-706-2330
Fax: 1-619- 810-0718
Email: info@xcessbio.com

NHEJ inhibitor– SCR7

Chemical Name: 5,6-bis((E)-benzylideneamino)-2-mercaptopyrimidin-4-ol



Molecular Weight:	334.39
Formula:	$C_{18}H_{14}N_4OS$
Purity:	≥ 98%
CAS#:	
Solubility:	DMSO up to 50 mM
Storage	Powder: 4°C 1 year DMSO: 4°C 3 month -20°C 1 year

Biological Activity:

SCR7 is a potent and selective inhibitor of non-homologous end joining (NHEJ). It inhibits joining of DSBs in cell-free DNA repair system, blocks Ligase IV-mediated joining by interfering with its DNA binding but not that of T4 DNA Ligase or Ligase I, thereby leading to accumulation of DSBs within the cells, culminating into cytotoxicity. SCR7 inhibits NHEJ in a Ligase IV-dependent manner within cells, and activates the intrinsic apoptotic pathway. More importantly, SCR7 impedes tumor progression in mouse models, and when co-administered with DSB-inducing therapeutic modalities it enhances their sensitivity significantly. SCR7 to target NHEJ offers a novel strategy toward the treatment of cancer and improvement of existing regimens.

How to Use:

In vitro: SCR7 was used at 20-150 μM final concentration in vitro and in cellular assays.

In vivo: SCR7 was intraperitoneally (IP) dosed to mice at 20 mg/kg once per day.

Reference:

1. Srivastava M, et al. An inhibitor of nonhomologous end-joining abrogates double-strand break repair and impedes cancer progression. (2012) Cell. 151(7):1474-87.