碧云天生物技术/Beyotime Biotechnology
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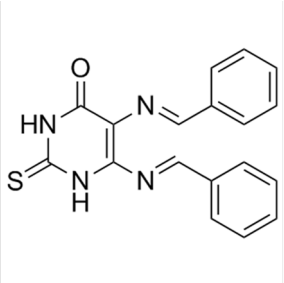
SCR7 (DNA ligase IV抑制剂)

产品编号	产品名称	包装
SF1136-10mM	SCR7 (DNA ligase IV抑制剂)	10mM×0.2ml
SF1136-5mg	SCR7 (DNA ligase IV抑制剂)	5mg
SF1136-25mg	SCR7 (DNA ligase IV抑制剂)	25mg

产品简介：

- **化学信息：**

化学名	5-(benzylideneamino)-6-[(E)-benzylideneamino]-2-sulfanylidene-1H-pyrimidin-4-one
简称	SCR7
别名	CS-3903, AK174235, BC600700, QC-11823, X3557
中文名	N/A
化学式	$C_{18}H_{14}N_4OS$
分子量	334.4
CAS号	1533426-72-0
纯度	98%
溶剂/溶解度	Water <1mg/ml; DMSO 45mg/ml; Ethanol <1mg/ml
溶液配制	5mg加入1.50ml DMSO，或每3.34mg加入1ml DMSO，配制成10mM溶液。SF1136-10mM用DMSO配制。



- **生物信息：**

产品描述	SCR7 is a molecule that inhibits joining of DSBs in cell-free repair system; inhibits NHEJ (nonhomologous end-joining) in a Ligase IV-dependent manner within cells, and activates the intrinsic apoptotic pathway.				
信号通路	Others				
靶点	Ligase IV inhibitor	NHEJ inhibitor	—	—	—
IC50	~40nM	~40nM	—	—	—
体外研究	SCR7 does not induce DSBs directly to the genome and is Ligase IV dependent. Besides, upon incubation of oligomeric dsDNA or supercoiled plasmid DNA with increasing concentrations of SCR7, there was no evidence for DNA breaks. Accumulation of DSBs leads to cell death upon SCR7 treatment with a dose-dependent decrease in cell proliferation of MCF7, A549, and HeLa with an IC50 of 40, 34 and 44μM, respectively, which was further confirmed by DIC imaging in MCF7. T47D, A2780 and HT1080 were also sensitive to SCR7, with an IC50 of 8.5, 120, and 10μM, respectively. SCR7 encapsulated micelles (ES) were also characterized by small-angle neutron scattering (SANS). Encapsulated SCR7 treatment resulted in accumulation of DNA breaks within the cells, resulting in cell cycle arrest at G1 phase and activation of apoptosis.				
体内研究	SCR7 treatment (10mg/kg, six doses) significantly reduced breast adenocarcinoma-induced tumor in mice. Untreated tumor animals survived only for 52 days, whereas treated animals exhibited ~4-fold increase in lifespan. Treatment with SCR7 resulted in regression of tumors with no obvious adverse effects. In addition, HPLC analysis of serum following administration of SCR7 into mice (20mg/kg) showed bioavailability of 114μg/ml and a t1/2 of 1hr.				
临床实验	N/A				
特征	N/A				

- **相关实验数据(此数据来自于公开文献，碧云天并不保证其有效性)：**

酶活性检测实验	
方法	N/A

细胞实验	
细胞系	N/A

浓度	N/A
处理时间	N/A
方法	N/A

动物实验	
动物模型	N/A
配制	N/A
剂量	N/A
给药方式	N/A

- **参考文献：**

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

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—	说明书	1份

保存条件：

-20ºC保存，至少一年有效。5mg和25mg包装也可以室温保存，至少6个月有效。如果溶于非DMSO溶剂，建议分装后-80ºC保存，预计6个月有效。

注意事项：

- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明：

1. 收到产品后请立即按照说明书推荐的条件保存。使用前可以在2,000-10,000g离心数秒，以使液体或粉末充分沉淀至管底后再开盖使用。
2. 对于10mM溶液，可直接稀释使用。对于固体，请根据本产品的溶解性及实验目的选择相应溶剂配制成高浓度的储备液(母液)后使用。
3. 具体的最佳工作浓度请参考本说明书中的体外、体内研究结果或其他相关文献，或者根据实验目的，以及所培养的特定细胞和组织，通过实验进行摸索和优化。
4. 不同实验动物依据体表面积的等效剂量转换表请参考如下网页：
   http://www.beyotime.com/support/animal-dose.htm

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