产品名称：**BAY-876**
产品别名：**BAY-876**

生物活性：

Description	BAY-876 is an oral and selective GLUT1 inhibitor with an IC50 of 2 nM[1]. BAY-876 shows good metabolic stability in vitro and high oral bioavailability in vivo. BAY-876 is sufficient to block basal and stress-regulated glycolysis, anchorage-dependent and independent growth of ovarian cancer cells[2].
IC_{50} & Target	IC50: 2 nM (GLUT1)[1]
In Vitro	BAY-876 (25-75 nM; 24 and 72 hours) has the growth-inhibitory effect and leads to a dose-dependent decrease in numbers of SKOV-3 and OVCAR-3 cells[2].

Cell Proliferation Assay[2]

Cell Line:	SKOV-3 and OVCAR-3 cells
Concentration:	25, 50, 75 nM
Incubation Time:	24 and 72 hours
Result:	Led to a dose-dependent decrease in numbers of SKOV-3 and OVCAR-3 cells.

In Vivo	BAY-876 (Oral administration; 1.5-4.5 mg/kg/day for 28 days) causes a clear dose-dependent inhibition of tumorigenicity in mice[2].
Animal Model:	Female NOD-scid IL2rgnull (NSG) mice carrying SKOV-3 subcutaneous (s.c.) xenografts[2]
Dosage:	1.5, 3, 4.5 mg/kg
Administration:	Oral administration; daily; for 28 days
Result:	Caused a clear dose-dependent inhibition of tumorigenicity.

Solvent&Solubility

In Vitro:

DMSO : ≥ 100 mg/mL (201.44 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0144 mL	10.0721 mL	20.1442 mL
	5 mM	0.4029 mL	2.0144 mL	4.0288 mL
	10 mM	0.2014 mL	1.0072 mL	2.0144 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

In Vivo:

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 **In Vitro** 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

1.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline)

	Solubility: 10 mg/mL (20.14 mM); Suspended solution; Need ultrasonic 此方案可获得 10 mg/mL (20.14 mM)的均匀悬浊液，悬浊液可用于口服和腹腔注射。 以 1 mL 工作液为例，取 100 μL 100.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。 2.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 10 mg/mL (20.14 mM); Clear solution 此方案可获得 ≥ 10 mg/mL (20.14 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。 以 1 mL 工作液为例，取 100 μL 100.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Siebeneicher H et al. Identification and Optimization of the First Highly Selective GLUT1 Inhibitor BAY-876. ChemMedChem. 2016 Aug 23. [2]. Ma Y, et al. Ovarian Cancer Relies on Glucose Transporter 1 to Fuel Glycolysis and Growth: Anti-Tumor Activity of BAY-876. Cancers (Basel). 2018 Dec 31;11(1).