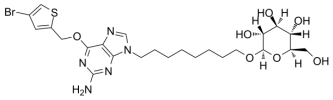
O6BTG-octylglucoside

Cat. No.:	HY-13057
CAS No.:	382607-78-5
Molecular Formula:	$C_{24}H_{34}BrN_5O_7S$
Molecular Weight:	616.53
Target:	DNA Methyltransferase
Pathway:	Epigenetics
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (162.20 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6220 mL	8.1099 mL	16.2198 mL
	5 mM	0.3244 mL	1.6220 mL	3.2440 mL
	10 mM	0.1622 mL	0.8110 mL	1.6220 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.05 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

O6BTG-octylglucoside is a potent O^6-methylguanine-DNAmethyl-transferase (MGMT) inhibitor, with IC_{50}s of 32 nM in vitro (cell extracts) and 10 nM in HeLa S3 cells.

IC_{50} & Target

MGMT
32 nM (IC_{50})

In Vitro

O6BTG-octylglucoside is a potent and non-toxic MGMT inhibitor, with IC_{50}s of 32 nM in vitro (cell extracts) and 10 nM in HeLa

S3 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Kinase Assay [1]

For the assays, 100 mg cell extract protein are used. In each assay, a negative and a positive sample, HeLa MR (MGMT-deficient) and HeLa S3 cell extract, respectively, are included. Incubation occurs in buffer contain-ing 700 mM HEPES-KOH (pH 7.8), 10 mM dithiothreitol and 50 mM EDTA for 90 min, which is the optimal time span for the reaction to be completed. Data are expressed as femtomoles of radioactivity trans-ferred from ^{3}H-methylnitrosourea-labeled DNA to protein per milligram of protein within O6BTG-octylglucoside[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Mol Pharm. 2015 Nov 2;12(11):3924-34.
- Sci Rep. 2017 Oct 24;7(1):13925.
- Tag der mündlichen Prüfung. 22. Juli 2014.

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REFERENCES

[1]. Jost Reinhard, et al. Inactivation of O6-methylguanine-DNA methyltransferase by glucose-conjugated inhibitors. Int.J.Cancer. (2001) 93,373-379.

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