Bexagliflozin

Cat. No.: HY-17604

CAS No.: 1118567-05-7

Molecular Formula: $C_{24}H_{29}ClO_7$

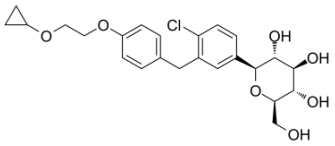
Molecular Weight: 464.94

Target: SGLT

Pathway: Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (215.08 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1508 mL	10.7541 mL	21.5082 mL
5 mM	0.4302 mL	2.1508 mL	4.3016 mL
10 mM	0.2151 mL	1.0754 mL	2.1508 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: ≥ 3 mg/mL (6.45 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3 mg/mL (6.45 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3 mg/mL (6.45 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Bexagliflozin (EGT1442) is a potent and selective sodium glucose co-transporter 2 (SGLT2) inhibitor, with IC_{50}s of 2 nM and 5.6 μM for human SGLT2 and SGLT1, respectively. Bexagliflozin can be used for the research of type 2 diabetic[1].

IC_{50} & Target

hSGLT1	hSGLT2
5.6 μM (IC_{50})	2 nM (IC_{50})

In Vivo

Bexagliflozin (0.1-10 mg/kg; p.o.) lowers blood glucose levels in a dose-dependent manner after glucose challenge (20%; 2 g/kg;p.o.)[1].

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

Animal Model:	Male Sprague-Dawley rats (240-60 g)[1]
Dosage:	0.1 mg/kg, 0.3 mg/kg, 1 mg/kg, 3 mg/kg, 10 mg/kg
Administration:	Oral administration
Result:	Significantly lower blood glucose in rats and can blunt the normal physiological response to a high dietary glucose load.

CUSTOMER VALIDATION

- Biochem Pharmacol. 2018 Jun;152:45-59.

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REFERENCES

[1]. Zhang W et al. EGT1442, a potent and selective SGLT2 inhibitor, attenuates blood glucose and HbA(1c) levels in db/db mice and prolongs the survival of stroke-prone rats. Pharmacol Res. 2011 Apr;63(4):284-93.

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