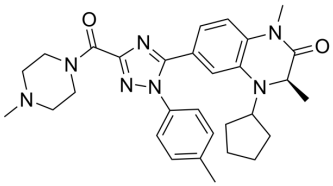
BET-IN-14

Cat. No.:	HY-153226
CAS No.:	2243669-93-2
Molecular Formula:	$C_{30}H_{37}N_7O_2$
Molecular Weight:	527.66
Target:	Epigenetic Reader Domain
Pathway:	Epigenetics
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 (189.52 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8952 mL	9.4758 mL	18.9516 mL
	5 mM	0.3790 mL	1.8952 mL	3.7903 mL
	10 mM	0.1895 mL	0.9476 mL	1.8952 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 (4.74 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (4.74 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (4.74 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

BET-IN-14 is an orally active pan BET inhibitor (IC_{50}: 5.35 nM). BET-IN-14 has anti-cancer activity[1].

IC_{50} & Target

BET (IC_{50}: 5.35 nM)

In Vitro

BET-IN-14 (Compound 171) (72 h) shows anti-tumor activity against various cancer cell lines (average IC_{50}: 174.7 nM), especially in MM.1S, Ty-82, MV-4-11, and KG-1 cells[1].

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

Cell Viability Assay[1]

Cell Line:	NCI-H522, RKO, NCI-H1299, MM.1S, Ty-82, MV-4-11, and KG-1 cells
Concentration:	0-1 μM approximately
Incubation Time:	72 h
Result:	Showed anti-tumor activity with average IC_{50} of 174.7 nM.

In Vivo

BET-IN-14 (Compound 171) (50 and 100 mg/kg, p.o., qd) inhibits tumor growth in MV-4-11 xenograft[1]

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

Animal Model:	Human MV-4-11 xenografts in Balb/c nude mice[1]
Dosage:	50 and 100 mg/kg
Administration:	p.o., qd
Result:	Inhibited tumor growth by 60.36%.

REFERENCES

[1]. Damaneh MS, et al. A new BET inhibitor, 171, inhibits tumor growth through cell proliferation inhibition more than apoptosis induction. Invest New Drugs. 2020 Jun;38(3):700-713.

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