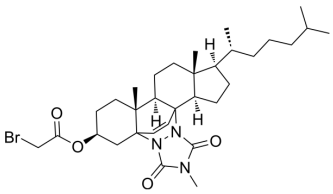
MeTC7

Cat. No.:	HY-147337
CAS No.:	1817841-22-7
Molecular Formula:	$C_{32}H_{48}BrN_3O_4$
Molecular Weight:	618.65
Target:	VD/VDR
Pathway:	Vitamin D Related/Nuclear Receptor
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 : 16.67 mg/mL (26.95 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6164 mL	8.0821 mL	16.1642 mL
	5 mM	0.3233 mL	1.6164 mL	3.2328 mL
	10 mM	0.1616 mL	0.8082 mL	1.6164 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (2.70 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MeTC7 is a Vitamin-D receptor (VDR) antagonist. MeTC7 has potent VDR inhibition activity with an IC_{50} value of 2.9 μM. MeTC7 shows good antitumor effects[1].

IC_{50} & Target

IC50: 2.9 μM (VDR)[1].

In Vitro

MeTC7 (compound 5) shows potent VDR inhibition activity with an IC_{50} value of 2.9 μM[1].
MeTC7 disrupts the VDR-Ligand-binding domain in Silico[1].
MeTC7 (250 nM; 18 h) suppresses RXRα and Importin-4 expressions in the ovarian cancer cell-line[1].
MeTC7 (250 nM; 18 h) inhibits the viability of ovarian cancer cells and induces PARP1 cleavage[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	2008 cells
Concentration:	250 nM
Incubation Time:	18, 12 h
Result:	Reduced the expression of RXR-α, Importin-4 and increased cleaved PARP1 expression in 2008 cells.

Cell Viability Assay[1]

Cell Line:	SKOV-3, IGROV-1, CAOV-3, OVCAR-3, OVCAR-8, and 2008 ovarian cancer cell-lines
Concentration:	0, 0.25, 0.5, 0.75, 1.0, 1.25 μM
Incubation Time:	24 h
Result:	Reduced the viability of SKOV-3, IGROV-1, CAOV-3, OVCAR-3, OVCAR-8, and 2008 ovarian cancer cell-lines.

In Vivo

MeTC7 (compound 5) (i.p.; 10 mg/kg) reduces the growth of the spontaneous transgenic TH-MYCN neuroblastoma and xenografts in vivo[1].

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

Animal Model:	Mice[1]
Dosage:	10 mg/kg
Administration:	IP
Result:	Reduced the growth of xenografts derived from ovarian cancer, medulloblastoma, and pancreatic cancer cells. Inhibited the growth of neuroblastoma cells and Xenografts. Reduced MYCN expression and blocked the growth of TH-MYCN transgene-driven spontaneous neuroblastoma.

CUSTOMER VALIDATION

- Biochem Biophys Rep. 2024 Mar, 37, 101621.

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REFERENCES

[1]. Negar Khazan, et al. Identification of a Vitamin-D Receptor Antagonist, MeTC7, which Inhibits the Growth of Xenograft and Transgenic Tumors In Vivo. J Med Chem

Caution: Product has not been fully validated for medical applications. For research use only.

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