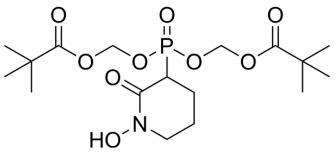
POMHEX

Cat. No.:	HY-131904
CAS No.:	2004714-34-3
Molecular Formula:	$C_{17}H_{30}NO_9P$
Molecular Weight:	423
Target:	Enolase; Apoptosis
Pathway:	Metabolic Enzyme/Protease; Apoptosis
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 (236.41 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3641 mL	11.8203 mL	23.6407 mL
	5 mM	0.4728 mL	2.3641 mL	4.7281 mL
	10 mM	0.2364 mL	1.1820 mL	2.3641 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 (5.91 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.91 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

POMHEX, a racemic mixture and a cell-permeable pivaloyloxymethyl (POM) proagent of HEX, is a potent, ENO2-specific inhibitor of enolase. POMHEX exhibits low-nanomolar potency against ENO1-deleted cells in vitro and is capable of eradicating ENO1-deleted xenografted tumours in vivo. POMHEX is a potent glycolysis inhibitor[1].

In Vitro

POMHEX (78 nM, 8h) minimally impacts ENO1-WT glioma cells but profoundly affected ENO1-deleted cells[1].
?POMHEX (0-720 nM) selectively induces energy stress, inhibits proliferation and triggers apoptosis in ENO1-deleted glioma cells[1].

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

Cell Proliferation Assay[1]

Cell Line:	ENO1-deleted (D423, red), ENO1-isogenically rescued (D423 ENO1, blue) and ENO1-WT (LN319, grey) cells.
Concentration:	78 nM.
Incubation Time:	8 h.
Result:	Down-regulated cell density.

In Vivo

POMHEX (i.v., ip) injections are consistently tolerated without haemolytic anaemia at doses of up to 10 mg per kg (body weight) per day. POMHEX (i.v., 35 mg/kg) results in lethargy that prompted veterinarians to perform euthanasia[1].
?POMHEX is rapidly hydrolysed to HemiPOMHEX in mouse plasma ex vivo, with a half-life of approximately 30 s, the half-life in human blood ex vivo was about 9min[1].

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

REFERENCES

[1]. Yu-Hsi Lin, et al. An enolase inhibitor for the targeted treatment of ENO1-deleted cancers. Nat Metab. 2020 Nov 23.

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

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