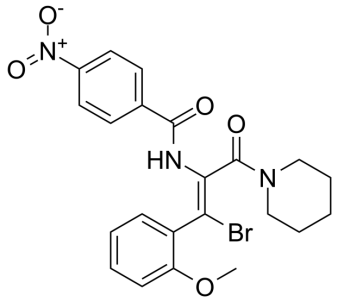
AT-130

Cat. No.:	HY-100028
CAS No.:	211364-06-6
Molecular Formula:	$C_{22}H_{22}BrN_3O_5$
Molecular Weight:	488.33
Target:	HBV; DNA/RNA Synthesis
Pathway:	Anti-infection; Cell Cycle/DNA Damage
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (51.19 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0478 mL	10.2390 mL	20.4780 mL
	5 mM	0.4096 mL	2.0478 mL	4.0956 mL
	10 mM	0.2048 mL	1.0239 mL	2.0478 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: ≥ 2.5 mg/mL (5.12 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AT-130, a phenylpropenamide derivative, is a potent hepatitis B virus (HBV) replication non-nucleoside inhibitor. AT-130 inhibits the viral DNA synthesis with an EC_{50} of 0.13 μM. AT-130 inhibits both wt and mutant HBVs. AT-130 has anti-HBV activity in hepatoma cells[1][2][3].

In Vitro

AT-130 inhibits Wt HBV (IC_{50}=2.4 μM), rtL180M HBV (IC_{50}=9.8 μM), rtM204I HBV (IC_{50}=35.6 μM)[1].
AT-130 (0.1, 1, 5, 10, 100 μM; for 7 days) causes dose-dependent inhibition of wt HBV replication in HepG2 cells transduced with HBV baculovirus. AT-130 at a concentration of 2.5 μM, reduces encapsidated HBV DNA by 50% (IC_{50}) and at 18.5 μM by 90% (IC_{90})[1].
AT-130 has no toxic to either HepG2 or Huh-7 cells at concentrations of up to 250 μM[1].
AT-130 (0.005, 0.05, 0.5, 5, 50 μM) does not inhibit HBV DNA synthesis by blocking the HBV endogenous DNA polymerase reaction directly in Huh 7 or HepG2 cells. AT-130 inhibits HBV DNA replication in hepatoma cells but has no effect on viral DNA polymerase activity or core protein translation[3].
AT-130 (2.5, 18.5 μM) has no effect on total HBV RNA production but does reduce encapsidated RNA. AT-130 does not affect

	core protein or nucleocapsid production and the activity of the protein expression vector[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Virol. 2022 Oct 13;e0136222.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. William E Delaney 4th, et al. Phenylpropenamide derivatives AT-61 and AT-130 inhibit replication of wild-type and lamivudine-resistant strains of hepatitis B virus in vitro. Antimicrob Agents Chemother. 2002 Sep;46(9):3057-60.

[2]. R B Perni , et al. Phenylpropenamide derivatives as inhibitors of hepatitis B virus replication. Bioorg Med Chem Lett. 2000 Dec 4;10(23):2687-90.

[3]. J J Feld, et al. The phenylpropenamide derivative AT-130 blocks HBV replication at the level of viral RNA packaging. Antiviral Res. 2007 Nov;76(2):168-77.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA