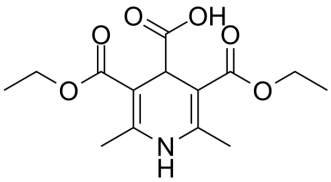
AV-153 free base

Cat. No.:	HY-135218A
CAS No.:	19350-66-4
Molecular Formula:	$C_{14}H_{19}NO_6$
Molecular Weight:	297.3
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (840.90 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.3636 mL	16.8180 mL	33.6361 mL
5 mM	0.6727 mL	3.3636 mL	6.7272 mL
10 mM	0.3364 mL	1.6818 mL	3.3636 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: ≥ 2.08 mg/mL (7.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (7.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AV-153 free base, a 1,4-dihydropyridine (1,4-DHP) derivative, is an antimutagenic. AV-153 free base intercalates to DNA in a single strand break and reduces DNA damage, stimulates DNA repair in human cells in vitro. AV-153 free base interacts with thymine and cytosine and has an influence on poly(ADP)ribosylation. AV-153 free base has anti-cancer activity[1][2][3].

In Vitro

AV-153 free base causes IC_{50}s for Raji and HL-60 cells of 14.9 mM and 10.3 mM, respectively[1].
AV-153 free base (1 nM to 10 μM; 3 hours) reduces the level of spontaneously arising DNA single-strand breaks (SSBs) in peripheral blood lymphocytes or HL-60 cells by 13–67%[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Mol Cell Cardiol. 29 October 2022.

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REFERENCES

[1]. Nadezhda I Ryabokon, et al. A 1,4-dihydropyridine Derivative Reduces DNA Damage and Stimulates DNA Repair in Human Cells in Vitro. Mutat Res. 2005 Nov 10;587(1-2):52-8.

[2]. E Buraka, et al. DNA-binding Studies of AV-153, an Antimutagenic and DNA Repair-Stimulating Derivative of 1,4-dihydropiridine. Chem Biol Interact. 2014 Sep 5;220:200-7.

[3]. Lidija Milkovic, et al. Antioxidative 1,4-Dihydropyridine Derivatives Modulate Oxidative Stress and Growth of Human Osteoblast-Like Cells In Vitro. Antioxidants (Basel). 2018 Sep 19;7(9):123.

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