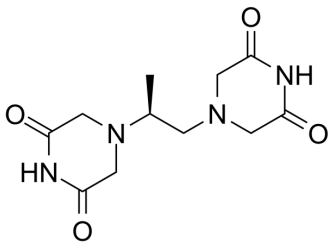
Dexrazoxane

Cat. No.:	HY-B0581
CAS No.:	24584-09-6
Molecular Formula:	$C_{11}H_{16}N_4O_4$
Molecular Weight:	268.27
Target:	Others
Pathway:	Others
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 : 25 mg/mL (93.19 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.7276 mL	18.6379 mL	37.2759 mL
5 mM	0.7455 mL	3.7276 mL	7.4552 mL
10 mM	0.3728 mL	1.8638 mL	3.7276 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 (9.32 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.32 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dexrazoxane (ICRF-187) is a cardioprotective agent.Target: OthersDexrazoxane is a cardioprotective agent. Dexrazoxane is a derivative of EDTA, dexrazoxane chelates iron and thus reduces the number of metal ions complexed with anthracycline and, consequently, decrease the formation of superoxide radicals. The exact chelation mechanism is unknown, but it has be postulated that dexrazoxane can be converted into ring-opened form intracellularly and interfere with iron-mediated free radical generation that is in part thought to be responsible for anthryacycline induced cadiomyopathy. It was speculated that dexrazoxane could be used for further investigation to synthesize new antimalarial drugs [1, 2].

CUSTOMER VALIDATION

- Nat Med. 2016 May;22(5):547-56.
- Adv Sci (Weinh). 2023 Mar 26;e2206007.
- Nano Res. 2023 Apr 18.
- Phytomedicine. 2023 Jun 10, 154922.
- Biomed Pharmacother. 2022 Jun 17;153:113280.

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REFERENCES

[1]. Jones, R.L., Utility of dexrazoxane for the reduction of anthracycline-induced cardiotoxicity. Expert Rev Cardiovasc Ther, 2008. 6(10): p. 1311-7.

[2]. Loyevsky, M., et al., Plasmodium falciparum and Plasmodium yoelii: effect of the iron chelation prodrug dexrazoxane on in vitro cultures. Exp Parasitol, 1999. 91(2): p. 105-14.

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