Dexrazoxane hydrochloride

Cat. No.: HY-76201

CAS No.: 149003-01-0

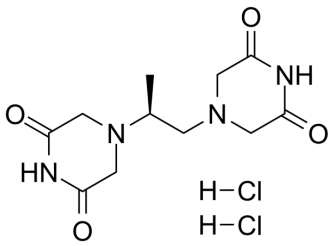
Molecular Formula: $C_{11}H_{18}Cl_2N_4O_4$

Molecular Weight: 341.19

Target: Others

Pathway: Others

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (146.55 mM; Need ultrasonic)
H_2O : 20 mg/mL (58.62 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.9309 mL	14.6546 mL	29.3092 mL
5 mM	0.5862 mL	2.9309 mL	5.8618 mL
10 mM	0.2931 mL	1.4655 mL	2.9309 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 130 mg/mL (381.02 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 3 mg/mL (8.79 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3 mg/mL (8.79 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3 mg/mL (8.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Dexrazoxane hydrochloride (ICRF-187 hydrochloride) is a cardioprotective agent.

IC_{50} & Target

As a derivative of EDTA, dexrazoxane chelates iron, thus reduce the number of metal ions complexed with anthracycline and, consequently, decrease the formation of superoxide radicals. This agent is used to protect the heart against the cardiotoxic side effects of anthracyclines, such as doxorubicin. It was speculated that dexrazoxane could be used for further

	investigation to synthesize new antimalarial drugs.

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.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Hasinoff BB. The use of dexrazoxane for the prevention of anthracycline extravasation injury. Expert Opin Investig Drugs. 2008 Feb;17(2):217-23.

[2]. Jones RL. Utility of dexrazoxane for the reduction of anthracycline-induced cardiotoxicity. Expert Rev Cardiovasc Ther. 2008 Nov;6(10):1311-7.

[3]. Lipshultz SE, Scully RE, Lipsitz SR et al. Assessment of dexrazoxane as a cardioprotectant in doxorubicin-treated children with high-risk acute lymphoblastic leukaemia: long-term follow-up of a prospective, randomised, multicentre trial. Lancet Oncol. 201

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