

SSJ-183

Chemical Properties

CAS No. : 1187533-34-1

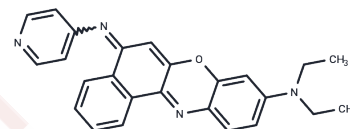
Formula: C₂₅H₂₂N₄O

Molecular Weight: 394.47

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	SSJ-183 is a low-toxicity and orally available and anti-malarial drug with an IC ₅₀ = 7.6 nM against <i>P. falciparum</i> and no lethality at doses up to 2000 mg/kg po.
Targets(IC ₅₀)	Antibiotic,Parasite
In vitro	SSJ-183 is a benzo[a]phenoxazine-based antimalarial compound. SSJ-183 showed potent in vitro activity against <i>Plasmodium falciparum</i> (K1 strain, IC ₅₀ = 7.6 nM) with a selectivity index >7000[1].
In vivo	Oral administration of SSJ-183 (100 mg/kg/day for 3 days) cured <i>P. berghei</i> -infected NMRI mice and exhibited a half-life of ~10 hours[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.535 mL	12.6752 mL	25.3505 mL
5 mM	0.507 mL	2.535 mL	5.0701 mL
10 mM	0.2535 mL	1.2675 mL	2.535 mL
50 mM	0.0507 mL	0.2535 mL	0.507 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Mizukawa Y, Ge JF, Bakar Md A, Itoh I, Scheurer C, Wittlin S, Brun R, Matsuoka H, Ihara M. Novel synthetic route for antimalarial benzo[a]phenoxazine derivative SSJ-183 and two active metabolites. *Bioorg Med Chem*. 2014 Jul 15;22(14):3749-52.
- Schleiferböck S, et al. In vitro and in vivo characterization of the antimalarial lead compound SSJ-183 in Plasmodium models. *Drug Des Devel Ther*. 2013 Nov 15;7:1377-84.
- Lu J, Arai C, Md AB, Ihara M. Plasmodium berghei proteome changes in response to SSJ-183 treatment. *Bioorg Med Chem*. 2011 Jul 1;19(13):4144-7.
- Ge JF, Arai C, Yang M, Bakar Md A, Lu J, Ismail NS, Wittlin S, Kaiser M, Brun R, Charman SA, Nguyen T, Morizzi J, Itoh I, Ihara M. Discovery of Novel Benzo[a]phenoxazine SSJ-183 as a Drug Candidate for Malaria. *ACS Med Chem Lett*. 2010 Jul 12;1(7):360-4.

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