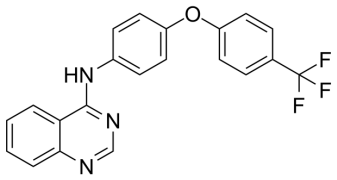
ND-011992

Cat. No.:	HY-155107
CAS No.:	2446880-46-0
Molecular Formula:	$C_{21}H_{14}F_3N_3O$
Molecular Weight:	381.35
Target:	Mitochondrial Metabolism; Bacterial
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 40 mg/mL (104.89 mM; ultrasonic and adjust pH to 4 with 1 M HCL)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6223 mL	13.1113 mL	26.2226 mL
5 mM	0.5245 mL	2.6223 mL	5.2445 mL
10 mM	0.2622 mL	1.3111 mL	2.6223 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 (6.56 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.56 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ND-011992 is a reversible, selective quinazoline-type inhibitor targeting quinone reductases and quinol oxidases. ND-011992 inhibits respiratory complex I and bo_3 oxidase in addition to bd-I and bd-II oxidases in E. coli strain BL21*Δcyo with the IC_{50} of 0.12, 2.47, 0.63 and 1.3 μM, respectively. ND-011992 can be used for tuberculosis study[1].

IC_{50} & Target

0.12 μM (respiratory complex I), 2.47 μM (bo_3 oxidase), 0.63 (bd-I oxidases), 1.3 μM (bd-II oxidases)

In Vitro

ND-011992 inhibits NADH oxidase activity of membranes from bovine heart mitochondria with an IC_{50} of 3.27 μM[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kägi J, et al. Exploring ND-011992, a quinazoline-type inhibitor targeting quinone reductases and quinol oxidases. Sci Rep. 2023;13(1):12226. Published 2023 Jul 28. doi:10.1038/s41598-023-39430-w

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