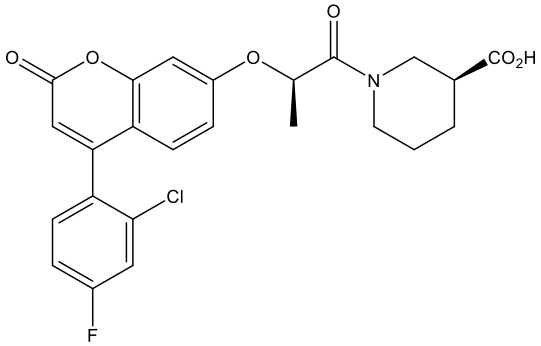
Catalog # 10-3919
IMT1B

CAS# 2304621-06-3
(3S)-1-((2R)-2-((4-(2-Chloro-4-fluorophenyl)-2-oxo-2H-chromen-7-yl)oxy)propanoyl)piperdine-3-carboxylic acid;
LDC203974
Lot # FBA8070



IMT1B is a specific inhibitor of mitochondrial DNA (mtDNA) transcription. It targets an allosteric binding site on human mitochondrial RNA polymerase leading to impairment of biogenesis of the oxidative phosphorylation (OXPHOS) system.[1] IMT1B displayed efficacy in mice containing human A2780 or DLD-1 cancer cell xenografts. IC_{50} = 138 nM A2780 cancer cells.[2]

1) Bonekamp, *et al.* (2020), *Small-molecule inhibitors of human mitochondrial DNA transcription;* Nature, **588** 712
2) Li, *et al.* (2023), *Discovery of a Novel, Potent, Orally Active, and Safe Inhibitor Targeting Human Mitochondrial RNA Polymerase;* J. Med. Chem., **66** 5118

PHYSICAL DATA

Molecular Weight:	473.88
Molecular Formula:	$C_{24}H_{21}ClFNO_6$
Purity:	>98% by HPLC
	NMR: Conforms
Solubility:	DMSO (>25 mg/ml)
Physical Appearance:	White to off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Hygroscopic solid. Solutions in DMSO may be stored at -20°C for up to 3 months.

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