

Product Data Sheet

Product Name: BCH001
Cat. No.: GC62863

Chemical Properties

Cas. No. 384859-58-9

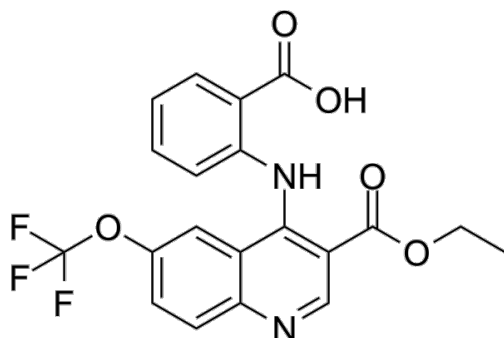
Formula $C_{20}H_{15}F_3N_2O_5$ M.Wt 420.34

Solubility DMSO : 125 mg/mL (297.38 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

BCH001, a quinoline derivative, is a specific PAPD5 inhibitor. BCH001 restores telomerase activity and telomere length in dyskeratosis congenita (DC) induced pluripotent stem cells. BCH001 shows no inhibition of poly(A)-specific ribonuclease (PARN) or several other canonical and non-canonical

Caution: Product has not been fully validated for medical applications. For research use only.

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polynucleotide polymerases. BCH001 is used to regulate aging[1].

BCH001 (100 nM-1 μ M; for 7 days) reduces telomerase RNA component (TERC) RNA oligo-adenylation and increases steady state TERC RNA levels in PARN-mutant iPSC clones. BCH001 causes few transcriptome-wide changes and rescues other ncRNAs disrupted by PARN mutations[1]. BCH001 (1 μ M, 24-72 h) has no adverse impact on cell growth, cell cycle, or apoptosis in induced pluripotent stem cells (iPSCs) from DC[1]. BCH001 inhibits ATP- and dose-dependently recombinant PAPD5 (rPAPD5) in vitro. PAPD5 is a non-canonical polymerase that oligoadenylates and destabilizes telomerase RNA component (TERC)[1].

[1]. Neha Nagpal, et al. Small-Molecule PAPD5 Inhibitors Restore Telomerase Activity in Patient Stem Cells. Cell Stem Cell. 2020 Jun 4;26(6):896-909.e8.

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