

Product Data Sheet

Product Name: SOP1812

Cat. No.: GC65887

Chemical Properties

Cas. No. 2546091-70-5

Formula $C_{45}H_{57}N_7O_6$

M.Wt 791.98

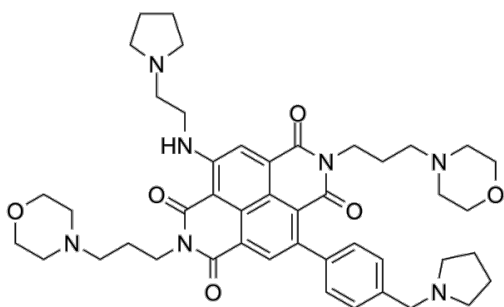
Solubility

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

SOP1812 is a naphthalene diimide (ND) derivative with anti-tumor activity. SOP1812 binds to **quadruplex arrangements (G4s)**, and down-regulates several cancer gene pathways. SOP1812 shows great affinity to hTERT G4 and HuTel21 G4 with **K_D** values of 4.9 and 28.4 nM, respectively. SOP1812 can be used for the research of cancer^[1].

SOP1812 (0-50 nM; 96 h) inhibits the proliferation of many cancer cells^[1].

SOP1812 (0-800 nM; 6-24 h) shows great affinity to hTERT G4 and HuTel21 G4^[1].

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

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SOP1812 (40 nM; 6-24 h) affects Wnt/ β -catenin, axon guidance, Hippo, MAPK and Rap1 pathways^[1].

Cell Proliferation Assay^[1]

Cell Line: MIA PaCa-2, PANC-1, Capan-1 and BxPC-3 cell lines

Concentration: 0-50 nM

Incubation
Time: 96 hours

Result: Showed anti-proliferation ability to MIA PaCa-2, PANC-1, Capan-1 and BxPC-3 cells with GI₅₀ values of 1.3, 1.4, 5.9 and 2.6 nM, respectively.

Cell Viability Assay^[1]

Cell Line: PANC-1 cells

Concentration: 0, 100, 400 and 800 nM

Incubation
Time: 6 and 24 hours

Result: Binded to hTERT G4 and HuTel21 G4 with K_D values of 4.9 and 28.4 nM, respectively.

Cell Viability Assay^[1]

Cell Line: MIA PaCa-2 Cells

Concentration: 40 nM

Incubation
Time: 6 and 24 hours

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Result: Affected WNT5B, DVL1, AXIN and APC2 expression which includes in Wnt/ β -catenin pathway and also showed effects on axon guidance, Hippo, MAPK, and Rap1 pathways.

SOP1812 (1 mg/kg; i.v. once or twice per week for 28 days) shows anti-tumor activity in MIA PaCa-2 xenografts mice and KPC mice^[1].

Animal Model: Female athymic nude mice with MIA PaCa-2 xenografts^[1]

Dosage: 1 mg/kg

Administration: Intravenous injection; 1 mg/kg once or twice per week; for 28 days

Result: Showed complete tumor regression and no significant tumor regrowth after day 28 on several animals.

Animal Model: KPC mice with PDAC symptoms^[1]

Dosage: 1 mg/kg

Administration: Intravenous injection; 1 mg/kg once per week; for 3 weeks

Result: Significantly extended survival of KPC mice and showed a better effect than gemcitabine.

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