Anticancer agent 207

Cat. No.: HY-163515

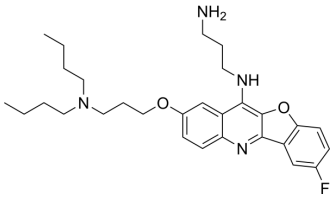
Molecular Formula: $C_{29}H_{39}FN_4O_2$

Molecular Weight: 494.64

Target: Ras

Pathway: GPCR/G Protein; MAPK/ERK Pathway

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Anticancer agent 207 (compound 10b) is a potent anticancer agent. Anticancer agent 207 bounds to the NRAS rG4 with a K_D value of 2.31 μM. Anticancer agent 207 shows cytotoxicity and decreases the expression of NRAS protein. Anticancer agent 207 shows antitumor activity[1].

IC_{50} & Target

NRAS rG4
2.31 μM (Kd)

In Vitro

Anticancer agent 207 (48 h) shows cytotoxicity for NRAS-mutant melanoma SK-MEL-2 with an IC_{50} value of 2.0 μM[1].
Anticancer agent 207 (0, 0.5, 1.0 μM; 72 h) decreases the expression of NRAS protein[1].
Anticancer agent 207 (0, 0.13, 0.25 μM; 10 days) inhibits the colony formation of SK-MEL-2 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	SK-MEL-2 cells
Concentration:	0, 0.5, 1.0 μM
Incubation Time:	72 h
Result:	Decreased the expression of NRAS protein in a dose-dependent manner.

Cell Proliferation Assay[1]

Cell Line:	MCF-7, HepG2, HL60, A375 cells
Concentration:	0-100 μM
Incubation Time:	48 h
Result:	Showed cytotoxicity with IC_{50}s of 4.1, 1.5, 2.7, 4.5 μM for MCF-7, HepG2, HL60, A375 cells, respectively.

In Vivo

Anticancer agent 207 (1 mg/kg; i.p.; every day for 21 days) inhibits tumor growth in volume and weight in mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Six-week-old male BALB/C nude mice (SK-MEL-2 xenograft mouse model)[1]
Dosage:	1 mg/kg
Administration:	I.p.; every day for 21 days
Result:	Suppressed tumor growth in volume and weight in the xenograft mouse model time-dependently.

REFERENCES

[1]. Jia-Wei Sun, et al. Design, synthesis, and evaluation of novel quindoline derivatives with fork-shaped side chains as RNA G-quadruplex stabilizers for repressing oncogene NRAS translation. European Journal of Medicinal Chemistry. 2024, 271(5): 116406.

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