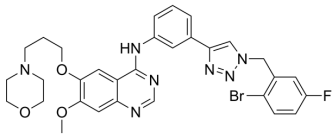
Anticancer agent 210

Cat. No.:	HY-162481
Molecular Formula:	$C_{31}H_{31}BrFN_7O_3$
Molecular Weight:	648.53
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Anticancer agent 210 (Compound 7a) is a Gefitinib (HY-50895) derivative. Anticancer agent 210 inhibits proliferation, migration and colony formation of cancer cells. Anticancer agent 210 induces apoptosis in cells H1299[1].

In Vitro

Anticancer agent 210 (0-32 μM, 48 h) inhibits proliferation of lung cancer cells NCI-H1299, A549, NCI-H1437, with IC_{50}s of 3.94, 3.16 and 1.84 μM, respectively[1].

Anticancer agent 210 (2-16 μM, 48 h) exhibits slightly cytotoxicity in normal hepatocytes L02, with IC_{50} of 18.87 μM, and a survival rate >60%[1].

Anticancer agent 210 (4-16 μM, 48 h) induces apoptosis of non-small cell lung cancer cells through Bcl-2/caspase3/PARP pathway, inhibits NSCLC cell migration through suppression of MMP9 protein expression[1].

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

Cell Proliferation Assay[1]

Cell Line:	NCI-H1299, A549, NCI-H1437
Concentration:	0-32 μM
Incubation Time:	48 h
Result:	Inhibited cell proliferation.

Western Blot Analysis[1]

Cell Line:	NCI-H1299
Concentration:	4-16 μM
Incubation Time:	48 h
Result:	Inhibited expressions of Bcl-2, caspase9 and MMP9, upregulated levels of cleaved caspase 3 and PARP.

In Vivo

Anticancer agent 210 (400 mg/kg, p.o., single dose) exhibits no significant toxicity in Kunming mice[1].

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

REFERENCES

[1]. Gao E, et al., Discovery of gefitinib-1,2,3-triazole derivatives against lung cancer via inducing apoptosis and inhibiting the colony formation. Sci Rep. 2024 Apr 22;14(1):9223.

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