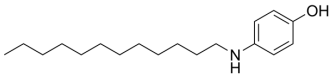
4-(Dodecylamino)phenol

Cat. No.:	HY-131724
CAS No.:	25848-37-7
Molecular Formula:	$C_{18}H_{31}NO$
Molecular Weight:	277.44
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

4-(Dodecylamino)phenol (p-DDAP) is an anticancer agent. 4-(Dodecylamino)phenol has anti-tumor activity and can suppress proliferation, arrest the cell cycle and induce apoptotic cell death. 4-(Dodecylamino)phenol can be used for the research of cancer, such as prostate cancer[1][2].

In Vitro

4-(Dodecylamino)phenol (p-DDAP) (0-10 μM; 72 h) induces growth arrest in NB-39-nu cells[1].
p-DDAP (0.1, 0.2, 0.4, 10 μM;) arrestes the cell cycle in the G0/G1 phase in dose-dependent manner[1].
p-DDAP (0.2 μM; 48 h) induces apoptotosis without differentiation[1].
p-DDAP (0.2, 0.4, 1 μM; 24 h, 72 h) induces apoptotic cell death through bcl-2 down-regulation and caspases activation[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	NB-39-nu cells
Concentration:	0-10 μM
Incubation Time:	72 h
Result:	Showed potent growth inhibitory effects against NB-39-nu cells.

Cell Cycle Analysis[1]

Cell Line:	NB-39-nu cells
Concentration:	0.1, 0.2, 0.4, 10 μM
Incubation Time:	24 h
Result:	Induced G0/G1-phase arrest in NB-39-nucells.

Apoptosis Analysis[1]

Cell Line:	NB-39-nu cells
Concentration:	0.2 μM
Incubation Time:	48 h

Result:	Induced G0/G1-phase arrest, displayed morphological apoptotic features, including aggregation and nuclear fragmentation in NB-39-nu cells.

In Vivo

4-(Dodecylamino)phenol (p-DDAP) (10, 15, 40 mg/kg; i.v., daily, for 2 weeks or i.p., single) exhibits excellent anticancer efficacy against hormonal independent prostate cancer in vivo[2].

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

Animal Model:	Specific pathogen-free athymic BALB/c nu/nu nude mice (6weeks of age, male)[2]
Dosage:	10, 15, 40 mg/kg
Administration:	i.v., daily, for 2 weeks or i.p., single
Result:	Suppressed tumor growth in PC-3-implanted mice in vivo.

REFERENCES

[1]. Noriko Takahashi, et al. The anti-tumor agent, p-DDAP potently suppresses proliferation through apoptosis in human neuroblastoma NB-39-nu cells. Cancer Lett

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