Hedgehog IN-6

Cat. No.: HY-162372

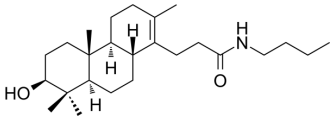
Molecular Formula: $C_{25}H_{43}NO_2$

Molecular Weight: 389.61

Target: Hedgehog; Smo

Pathway: Stem Cell/Wnt

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



BIOLOGICAL ACTIVITY

Description

Hedgehog IN-6 (Compound Q29) is a Hedgehog (Hh) inhibitor that can be used in cancer research. Hedgehog IN-6 inhibits the hedgehog (Hh) pathway by binding to the cysteine-rich domain (CRD) of Smoothened (Smo) and blocking its cholesterization[1].

In Vitro

Q29 (1-10 μM; 24 h) dose-dependently inhibits GLI1 protein expression activated by Shh-N[1].
Q29 (1-10 μM; 24 h + 12 h) inhibits Hh signaling-dependent cell proliferation in a dose-dependent manner[1].
Q29 inhibits Gli-luciferase activity with an IC_{50} of 1.33 μM in the presence of different concentrations of Shh-N[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	NIH 3T3 cells
Concentration:	1, 3, 10 μM
Incubation Time:	24 h
Result:	Dose dependently decreased the protein and mRNA levels of endogenous Gli1.

Cell Proliferation Assay[1]

Cell Line:	cGNP cells; medulloblastoma cells
Concentration:	1, 3, 10 μM
Incubation Time:	24 h+12h
Result:	Dose dependently inhibited the growth of Shh-N-stimulated cGNP cells and medulloblastoma cells isolated from Ptch1+/P53/ mice.

In Vivo

Q29 (90 mg/kg; oral gavage; twice daily; 13 days) effectively inhibits tumor growth in Ptch1+/P53/ mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Ptch1+/P53/ mice[1]

Dosage:	90 mg/kg
Administration:	p.o.; twice daily; 13 days
Result:	Effectively inhibited tumor growth and exhibited synergistic inhibition with vismodegib (15 mg/kg; HY-10440)

REFERENCES

[1]. Liu YB, et al. A sterol analog inhibits hedgehog pathway by blocking cholesterylation of smoothened. Cell Chem Biol. 2024 Feb 28:S2451-9456(24)00076-X.

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

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