

Hedgehog IN-11

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

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| Description | HedgehogIN-11 is an orally active Hedgehog inhibitor. It reduces resistance to Temozolomide (TMZ) by downregulating O6-methylguanine-deoxyribonucleotides methyltransferase (MGMT) expression through the Hedgehog pathway. HedgehogIN-11 significantly inhibits the migration and invasion of TMZ-resistant glioblastoma cells and induces apoptosis. Computational modeling predicts good blood-brain barrier penetration for HedgehogIN-11. This compound is applicable for glioblastoma (GBM) research. |
| Targets(IC50) | Apoptosis,Hedgehog/Smoothened,DNA Methyltransferase |
| In vitro | Hedgehog IN-11 (Compound 10c2) demonstrates antiproliferative effects on U87MG, T98G, U343/TMZ, and U251/TMZ cells, with IC50 values of 0.27, 0.70, 0.35, and 0.65 nM, respectively, and exhibits low cytotoxicity against GES-1 cells with a CC50 of 1.12 nM. Hedgehog IN-11 (0.05-5 nM, 24 h-12 d) suppresses colony formation, migration, and invasion in T98G cells. Additionally, Hedgehog IN-11 (0.05-50 nM, 12 h) induces apoptosis in T98G cells and inhibits MGMT expression by suppressing the Hedgehog signaling pathway. |
| In vivo | Hedgehog IN-11 (Compound 10c2) administered orally at doses of 6-12 mg/kg over 13 days exhibits significant efficacy against TMZ-resistant glioblastoma in mice and effectively enhances the therapeutic impact of TMZ. |

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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