

Cystatin B agonist 1

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

Description	Cystatin Bagonist 1 is an orally active inhibitor of MMP-2/9. It suppresses U87 and T98G cells with IC50 values of 3.95 μ M and 3.43 μ M, respectively. Cystatin Bagonist 1 induces S-phase cell cycle arrest in MG cells and inhibits their angiogenesis, migration, and invasion. Additionally, it hinders tumor growth in U87 MG xenograft models. This compound is applicable for research in malignant glioma (MG).
Targets(IC50)	MMP,Cadherin
In vitro	Cystatin B agonist 1 (Compound 1e) (2.5-6 μ M, 14 days) inhibits colony formation of U87 and U251 cells in a concentration-dependent manner. At concentrations of 2.5-6 μ M for 24 hours, it induces S-phase arrest in U87 and U251 cells. Additionally, at concentrations of 2-6 μ M for 6 hours, it reduces the tube formation ability of U87 and HUVEC cells. Cystatin B agonist 1 (2.5-6 μ M, 6-24 hours) suppresses migration and invasion in the MG cell lines (U87 and U251 cells). It also increases E-cadherin expression while decreasing Vimentin and matrix metalloproteinases (MMPs) expression in U87 and U251 cells at concentrations of 5-6 μ M.
In vivo	Compound 1e, a Cystatin B agonist, administered orally at doses of 50-100 mg/kg for five consecutive days followed by a two-day break over a 21-day period, demonstrates significant antitumor activity in the U87 MG xenograft model.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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