

MMP-9-IN-12

## 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	MMP-9-IN-12 is an inhibitor of matrix metalloproteinase-9 (MMP-9) with an IC50 value of 6.57 $\mu$ M. It demonstrates an IC50 of 1.54 $\mu$ M in HCT-116 cells and can induce apoptosis, reactive oxygen species (ROS) generation, and mitochondrial depolarization. Additionally, MMP-9-IN-12 inhibits cell migration and disrupts cell cycle progression, making it useful for colorectal cancer (CRC) research.
Targets(IC50)	Apoptosis,MMP,ROS
In vitro	MMP-9-IN-12 (compound 10 g) exhibits an IC50 value of 1.54 $\mu$ M in HCT-116 cancer cells, showing moderate activity in other cancer cell lines with IC50 values ranging from 14.41 to 24.35 $\mu$ M. At concentrations of 0.77-3.08 $\mu$ M over 48 hours, MMP-9-IN-12 induces apoptosis, reactive oxygen species (ROS) generation, and mitochondrial depolarization in HCT-116 cells. Additionally, it decreases colony formation in a dose-dependent manner. The compound also reduces the number of cells in S and G2 phases, while increasing the population in the G0/G1 phase. Furthermore, MMP-9-IN-12 decreases MMP9 expression and inhibits the migration of HCT-116 cells.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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