

Data Sheet

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 $\begin{array}{lll} \textbf{Product Name} & : PCNA-I \ 1 \\ \textbf{Cat.No.} & : URK-V2025 \\ \textbf{CAS No.} & : 444930-42-1 \\ \textbf{Molecular Formula} & : C_{17}H_{14}N_2O_2S \\ \textbf{Molecular Weight} & : 310.37 \\ \end{array}$

Target : Solubility :

OH N H S

Biological Activity

PCNA-I1 is a small molecule inhibitor of proliferating cell nuclear antigen (PCNA), selectively binds to PCNA trimers with Kd of 0.14-0.41 uM, inhibits the growth of tumor cells of various tissue types with IC50 of 0.2 uM.

PCNA-I1 dose- and time-dependently reduced the chromatin-associated PCNA in cells, affected the growth of nontransformed cells at significantly higher concentrations (IC50=1.6 uM).

PCNA-I1 also dose-dependently reduced uptake of BrdU in PCNA-I1 treated cells, induced cancer cell arrest at both the S and G(2)/M phases.

PCNA-I1 induced DNA damage and apoptosis in both LNCaP (wild-type p53) and PC-3 cells (p53-null) and enhanced DNA damage and apoptosis triggered by cisplatin, also induced autophagy in PC-3 cells.

PCNA-I1 (i,v.) significantly retarded growth of LNCaP tumors of in nude mice without causing detectable effects on mouse body weight and hematology profiles.

References

- 1. Tan Z, et al. Mol Pharmacol. 2012 Jun;81(6):811-9.
- 2. Dillehay KL, et al. Mol Cancer Ther. 2014 Dec;13(12):2817-26.

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