

Product Datasheet

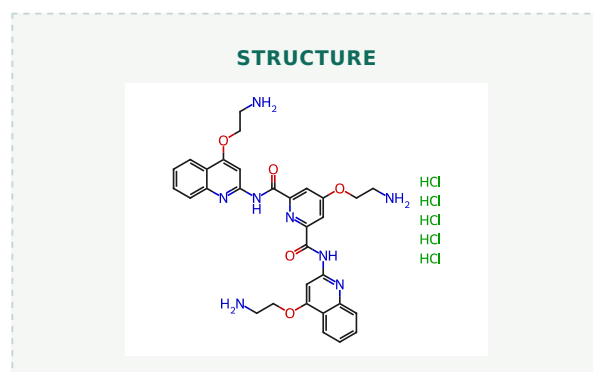
Pyridostatin hydrochloride

Catalog No. **BP-02314A** · CAS **1781882-65-2** · Form **salt** · **hydrochloride** · Physical state **other** · Color **White to off-white** · Version **1.0** · Revision **2026-09-11**

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Target DNA/RNA Synthesis; G-quadruplex; Flavivirus; Src; Virus Protease	Research area Cancer
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Molecular formula	C₃₁H₃₇Cl₅N₈O₅
Molecular weight	778.9410



DESCRIPTION

Pyridostatin (RR82) hydrochloride is a G-quadruplex DNA stabilizing agent (K_d=490 nM). Pyridostatin hydrochloride promotes growth arrest in human cancer cells by inducing replication- and transcription-dependent DNA damage. Pyridostatin hydrochloride targets the proto-oncogene Src. Pyridostatin hydrochloride reduced SRC protein levels and SRC-dependent cellular motility in human breast cancer cells.

BIOLOGICAL ACTIVITY

Pyridostatin (2 μM; 72 h) hydrochloride potently inhibits the proliferation of SV40-transformed human MRC5 fibroblasts.

Pyridostatin (2 μM; 1-10 days) hydrochloride induces G2-phase cell cycle arrest and activates the DNA damage response in SV40-transformed human MRC5 fibroblasts and various human cancer cell lines. Long-term treatment causes G1-phase arrest in some cells, and checkpoint inhibition reverses this cell cycle arrest.

SOLUBILITY

Soluble in H₂O

In vitro H₂O : 50 mg/mL

REFERENCES

- [1]. Rodriguez R, et al. Small-molecule-induced DNA damage identifies alternative DNA structures in human genes. Nat Chem Biol. 2012;8(3):301-310. Published 2012 Feb 5.
- [2]. Koirala D, et al. A single-molecule platform for investigation of interactions between G-quadruplexes and small-molecule ligands. Nat Chem. 2011;3(10):782-787. Published 2011 Aug 28.

[3]. Moruno-Manchon JF, et al. The G-quadruplex DNA stabilizing drug pyridostatin promotes DNA damage and downregulates transcription of Brca1 in neurons. *Aging (Albany NY)*. 2017;9(9):1957-1970.

[4]. Zhang X, et al. Chemical profiling of DNA G-quadruplex-interacting proteins in live cells. *Nat Chem*. 2021 Jul;13(7):626-633.

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Lot CoA and SDS are separate documents.